

CAL FIRE



CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION SONOMA-LAKE NAPA UNIT

1199 Big Tree Road
St. Helena, CA 94574

INVESTIGATION REPORT

CASE NUMBER: 17CALNU010045

CASE NAME: Tubbs

DATE: October 8, 2017

INCIDENT TYPE: Wildland Fire

INCIDENT INVESTIGATOR(s): John MARTINEZ, Battalion Chief – CZU
Vince BERGLAND, Battalion Chief, CSR
Matt FRANKLIN, Fire Captain, BDU
Mark FRITS, Battalion Chief - TGU
Scott LOHSE, Fire Captain – TGU
Greg ROATH, Fire Captain – SKU
Mike THOMPSON, Battalion Chief - CNR

1 **1 - VIOLATION(S):**

2 None

3

2 - SUMMARY:

On the evening of Sunday, October 8, 2017 a red flag warning was in effect throughout the North Bay including Napa County. Temperatures that evening were in the 60's to lower 70's, with humidity in the 10-18% range. Wind models later prepared by CAL FIRE Northern Operations Predictive Services estimated ridgetop winds could have reached 55 to 90 mph. At approximately 9:41 P.M. Michelle HICKMAN (M. HICKMAN), a resident of Calistoga, CA reported a fire occurring in the area of Hwy 128 and Tubbs Road. The fire was named the Tubbs Fire and eventually burned 36,807 acres in both Napa and Sonoma Counties and destroyed 5636 structures including 4651 residential structures, 94 commercial properties and 891 outbuildings. The fire damaged an additional 230 residential structures, 22 commercial structures and 65 outbuildings. The Tubbs Fire included 22 civilian fatalities.

On October 9, 2017, I arrived at approximately 2:30 P.M. in Napa County to assist with the origin and cause investigation of the Tubbs Fire. On October 11, 2017 I was assigned as the lead investigator to conduct an origin and cause investigation for the Tubbs Fire. During the course of my investigation I located a General Origin Area (GOA) and subsequently a Specific Origin Area (SOA) on a privately-owned parcel off of Bennett Lane in Calistoga, CA. After a thorough, systematic investigation, taking into account witness statements, opinions of experts, physical evidence, collected electronic data, and fire direction indicators, the SOA of the Tubbs fire is near the primary residential structure and immediate area surrounding the structure at 1128 Bennett Lane. During my investigation, I eliminated all other causes for the Tubbs Fire, with the exception of an electrical caused fire originating from an unknown event affecting privately owned conductor or equipment.

1 **3 - SUBJECT(S):**

2 None

3

4 - VICTIMS:

The Tubbs Fire included 22 civilian fatalities, listed below (by age and location of death):

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WITNESSES:

W1

Michelle HICKMAN (M. HICKMAN)

DOB: [REDACTED]

M. HICKMAN was the first reporting party to the Tubbs Fire. She can testify to what she saw from her residence the night of the fire on October 8, 2017.

W2

Ron RISI (R. RISI)

DOB: [REDACTED]

R. RISI can testify his power went off sometime after 9:00 P.M. on October 8, 2017. He also received a call from S. THOMPSON at an unknown time after 9:00 P.M. telling him there was a fire on the hillside and to get out. R. RISI can testify when he left his residence, he noticed the fire was to the south on the west side of Bennett Lane.

W3

Shawn THOMPSON (S. THOMPSON)

DOB: [REDACTED]

S. THOMPSON can testify that he was awoken by his wife on October 8, 2017, telling him there was a fire. He can also testify he observed flames in the backyard coming down the hill towards him and after he evacuated the house and parked on Hwy 128, he

1 noticed fire above his house coming down from where the ZINK'S house was.

2
3 W4

4 Linda THOMPSON (L. THOMPSON)

5 [REDACTED]
6 [REDACTED]
7 DOB: [REDACTED]

8 L. THOMPSON can testify she was in her house on the evening of October 8, 2017
9 when she heard smoke alarms began to ring and she could smell smoke. When leaving
10 the house there were embers flying and she couldn't tell where they were coming from.
11 She called 911 at 9:52 P.M. as she and S. THOMPSON drove down the driveway.

12
13 W5

14 Roger LUTZ III (R. LUTZ)

15 Napa County Fire

16 1199 Big Tree Road

17 St. Helena, CA 94574

18 DOB: [REDACTED]
19 [REDACTED]

20 R. LUTZ can testify on October 8, 2017 he was on E-221 on Division Z, and responded
21 to 1200 Bennett Lane, where he observed fire backing down slope towards the
22 residence.

23
24 W6

25 Jason TAMAGNI

26 Calistoga Fire Dept.

27 1113 Washington Street

28 Calistoga, CA 94515

29 [REDACTED]
30 TAMAGNI was one of the first fire resources on scene on October 8, 2017. He can
31 testify to fire behavior in the area of Hwy 128 and Bennett Lane.

1

2 W7

3 Jaime OROZCO

4 Calistoga Fire Department

5 1113 Washington Street

6 Calistoga, CA 94515

7 707-942-2840

8 OROZCO can testify he was on E-419 the night of October 8, 2017. He observed the
9 fire on both sides of Hwy 128, from a wind driven fire from Bennett Lane.

10

11 W8

12 Mark RHODES

13 Electrical Engineer

14 3460 Zion Canyon Ct.

15 Pleasanton, CA 94588

16

17 RHODES can testify to the electrical systems near the water pump and private pole 1.

18

19 W9

20 Luis Alberto VARGAS-RIVERA (VARGAS)

21

22

23 DOB: [REDACTED]

24

25 On October 8, 2017, at approximately 10:05 P.M. VARGAS observed a fire on the hill
26 above 3452 Hwy 128. He can testify the fire had not yet burned onto the Wheeler
27 Farm, where he works.

28

29 W10

30 Dave KAROLY

31 CAL FIRE LIDAR

LE80 (Rev. 7/2011)

1 1300 U. Street
2 Sacramento, CA 94244
3 916-324-1644
4 Assisted in documenting the scene using LIDAR.
5
6 W11
7 Dan GREGORY
8 CAL FIRE LIDAR
9 1300 U. Street
10 Sacramento, CA 94244
11 916-323-1044
12 Assisted in documenting the scene using LIDAR.
13
14 W12
15 Susan SWENSON (S. SWENSON)
16 [REDACTED]
17 [REDACTED]
18 [REDACTED]
19 DOB: [REDACTED]
20 [REDACTED]
21 S. SWENSON can testify she had not been on the property since September 3, 2017
22 and is unaware of any problems associated with the property. She can testify Mike
23 ANDREWS is on the property at least once per week to make sure everything is
24 working properly and maintained.
25
26 W13
27 Mike ANDREWS
28 Caretaker for 1128 Bennett Lane, hired by property owner.
29 [REDACTED]
30 [REDACTED]
31 [REDACTED]

1 ANDREWS is the caretaker for the 1128 Bennett Lane property, hired by the ZINK
2 family. ANDREWS can testify to the maintenance and condition of the property, prior to
3 the Tubbs Fire.

4
5 W14

6 Gino DEGRAFFERIED
7 CAL FIRE Battalion Chief

8 DEGRAFFERIED was the first CAL FIRE Battalion Chief at scene and can testify to his
9 observations when he arrived on scene approximately 20 minutes after the initial
10 dispatch, including an estimation of wind conditions and size of the fire.

11
12 W15

13 Jim NOLT
14 Electrical Engineer
15 107 Blue Canyon Way
16 Folsom, CA 95630

17 [REDACTED]
18 NOLT can testify to his observations and analysis of the electrical systems identified
19 during the Tubbs Fire Investigation, as outlined in his report.

20
21 W16

22 Amy HUNTER
23 Officer, Napa Police Department
24 1539 1st Street
25 Napa, CA 94559
26 707-257-9223

27 HUNTER can testify to information she received regarding a subject seen on Silverado
28 Trail Road the day of the fire, miles from the GOA.

29
30 W17

31 Dale HOSKINS
LE80 (Rev. 7/2011)

1 Police Officer, Calistoga Police Department

2 1234 Washington Street

3 Calistoga, CA 94515

4 707-942-2810

5 HOSKINS was the first public officer at scene, prior to firefighters, where he took a
6 photograph of the fire. He can testify to his observations.

7
8 W18

9 Lucinda "Cindy" Ann YANT (L. YANT)

10 [REDACTED]
11 [REDACTED]
12 [REDACTED]
13 [REDACTED]

14 DOB: [REDACTED]

15 L. YANT can testify she was home on the night of October 8, 2017 and observed a fire
16 coming towards her residence. L. YANT provided photographs showing her
17 observations.

18
19 W19

20 Nicholaus LUTZ (N. LUTZ)

21 Deer Park Volunteer Fire Department

22 19710 Mountain Meadows North

23 Hidden Valley Lake, CA 95467

24 DOB: [REDACTED]
25 [REDACTED]

26 N LUTZ can testify to the where the fire was when he arrived on scene assigned to
27 Engine 21, with the Deer Park Volunteer Fire Department. He can also testify to the
28 fact the fire was backing northeast along Bennett Lane, and had not reached the 1200
29 Bennett Lane residence until late that evening and into the early morning hours of
30 October 9, 2017.

1 W20

2 Anne MISSEN

3 [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 MISSEN can testify she saw the fire burn slowly from the south to the north, near the
7 area of [REDACTED] Bennett Lane, as viewed from her residence. MISSEN describes the fire
8 as fighting against the wind and slowly moving from left (south) to right (north)
9 throughout the night and the next day.

10

11 W21

12 Rob EBLING

13 Calistoga Fire Department

14 1113 Washington Street

15 Calistoga, CA 94515

16 707-337-2882

17 EBLING responded to the incident on the initial dispatch. He can testify the fire was
18 backing northeast on the hillside above Bennett Lane and when he arrived on scene it
19 had backed as far as the PG&E pole 1 on Bennett Lane.

20

21 W22

22 Mark OLACHEA

23 [REDACTED]

24 [REDACTED]

25 [REDACTED]

26 OLACHEA took photographs in the area of Tubbs and Bennett Lane, on October 9,
27 2017.

28

29 W23

30 Ken MILLER, CFI

31 Senior Fire Investigator
LE80 (Rev. 7/2011)



1 Fire Investigation Unit
2 Liberty Mutual Insurance
3 175 Berkeley Street
4 Boston, MA 02116

5 Cell: [REDACTED]

6 MILLER took photographs of tripped fuses on Bennett Lane and provided photographs
7 to the investigation team.

8

9 W24

10 Stephanie LONGTON

11 Bennett Lane Winery

12 405 Parkview Drive

13 Healdsburg, CA 95448

14 [REDACTED]

15 LONGTON provided video footage from a camera on the winery property showing first
16 sign of fire on hillside at approximately 9:36 P.M. on October 8, 2107.

17

18 W25

19 Whitney RAMPP

20 [REDACTED]

21 [REDACTED]

22 [REDACTED]

23 DOB: [REDACTED]

24 RAMPP can testify she heard a transformer blow sometime before 10:00 P.M. A short
25 time later she saw a fire on the hill in the area of Bennett Lane.

26

27 W26

28 Jan RISI (J. RISI)

29 [REDACTED]

30 [REDACTED]

31 [REDACTED]

Jn

1 J. RISI was with her husband, R. RISI, when they left their residence after being told by
2 S. THOMPSON there was a fire off Bennett Lane. J. RISI can testify to her
3 observations when she left her residence.

4
5 W27

6 Peggy OKELLY

7 [REDACTED]
8 [REDACTED]
9 [REDACTED]

10 DOB: [REDACTED]

11 OKELLY can testify that on October 8, 2017 she saw the fire backing towards her
12 residence sometime after 10:00 P.M.

13
14 W28

15 Theresa JACKSON

16 [REDACTED]
17 [REDACTED]

18 DOB: [REDACTED]

19 [REDACTED]

20 JACKSON can testify she was at 3468 Hwy 128 on October 8, 2017, and at
21 approximately 9:55 P.M., she walked to the south side of the residence and saw the hill
22 on fire above the pig farm at 3452 Hwy 128 ([REDACTED] residence).

23
24 W29

25 Larry ANDERSON

26 [REDACTED]
27 [REDACTED]

28 DOB: [REDACTED]

29 [REDACTED]

30 ANDERSON can testify he observed fire on the hillside west of Bennett Lane, south of
31 1177 Bennett Lane, sometime after 10:05 P.M. on night of October 8.

1

2 W30

3 Anthony Morgan PERLISS

4 [REDACTED]

5 [REDACTED]

6 DOB: [REDACTED]

7 [REDACTED]

8 PERLISS can testify that between 9:00 P.M. and 10:00 P.M., on October 8, 2017, he
9 was at home and noticed the lights flicker 2 to 3 times. At approximately 10:10 P.M.
10 PERLISS went outside and while in the driveway looking south, he observed a glow
11 toward the pergola, south of the residence. Shortly after, he observed fire south of a
12 pergola below his house, burning low to the ground with little to no flames. He notified
13 his girlfriend about the fire at 10:37 P.M.

14

15 W31

16 Dan HICKMAN (D. HICKMAN)

17 [REDACTED]

18 [REDACTED]

19 DOB: [REDACTED]

20 [REDACTED]

21 D. HICKMAN can testify he was home on the evening of October 8, 2017. While
22 outside around 9:30 P.M., he heard a pop or explosion and was aware of a light above
23 him to the north. He estimated the light occurred between 9:27 and 9:28 P.M. He didn't
24 look north to see what it was.

25

26 W32

27 Cigi Glynn RICH

28 [REDACTED]

29 [REDACTED]

30 [REDACTED]

31 DOB: [REDACTED]

LE80 (Rev. 7/2011)

1 RICH can testify she first saw a fire on October 8, 2017 at approximately 9:45 P.M.,
2 across the valley from where she lived. RICH also took pictures of what she could see
3 from the deck of her residence.

4
5 W33

6 Jordan JEFFERIES (J. JEFFERIES)

7 [REDACTED]
8 [REDACTED]
9 J. JEFFERIES lives with RICH, can testify he first saw a fire on October 8, 2017 at
10 approximately 9:45 P.M., across the valley from where he lives.

11
12 W34

13 Eric JEFFERIES (E. JEFFERIES)

14 Father of J. JEFFERIES

15 [REDACTED]
16 [REDACTED]
17 DOB: [REDACTED]
18 [REDACTED]

19 E. JEFFERIES can testify he was at [REDACTED] Bennett Lane, and in bed on the evening of
20 October 8, 2017, when he noticed light coming through his window at 9:44 P.M. He got
21 out of bed and observed the fire.

22
23 W35

24 Charles Milton DARRALL (C. DARRALL)

25 [REDACTED]
26 [REDACTED]
27 [REDACTED]
28 DOB: [REDACTED]

29 C. DARRALL can testify he heard a boom at approximately 10:15 P.M. and saw a glow
30 in the area of Bennett Lane.

1 W36

2 Shannon Lynn DARRALL (S. DARRALL)

3 [REDACTED]
4 [REDACTED]
5 [REDACTED]

6 DOB: [REDACTED]

7 S. DARRALL can testify she heard a boom at approximately 10:15 P.M. and saw a glow
8 in the area of Bennett Lane.

9

10 W37

11 Charlie BROWN JR.

12 [REDACTED]
13 [REDACTED]
14 DOB [REDACTED]
15 [REDACTED]

16 BROWN JR can testify the electrical wiring leading from the house at 1200 Bennett
17 Lane to the viewing platform on the property was not active and has not been in use for
18 years.

19

20 W38

21 Katie SERENI

22 [REDACTED]
23 [REDACTED]
24 DOB: [REDACTED]

25 SERENI can testify she observed a limb catch fire on powerlines adjacent to her
26 residence at [REDACTED] Lerner Drive prior to the Tubbs fire. The limb was extinguished and
27 there was no fire spread.

28

29 W39

30 Robert TRUMBALL

31 PG&E

LE80 (Rev. 7/2011)

1 77 Beale Street
2 P.O. Box 415-973-1000
3 San Francisco, CA 94177
4 TRUMBALL assisted in the removal of smart meters on Bennett Lane.
5
6 W40
7 Daniel DAVIS
8 PG&E
9 77 Beale Street
10 P.O. Box 415-973-1000
11 San Francisco, CA 94177
12 DAVIS assisted in the removal of smart meters on Bennett Lane.
13
14 W41
15 Lee Palmer
16 Deputy Director, Safety and Enforcement Division
17 California Public Utilities Commission
18 505 Van Ness Avenue
19 San Francisco, CA 94102
20 415-703-2369
21 PALMER was present at 1128 Bennett Lane on October 23, 2017 and observed the
22 collection of PG&E equipment by CAL FIRE investigators.
23
24 W42
25 Raymond Cho
26 Utilities Engineer, Electric Safety Reliability Branch
27 505 Van Ness Avenue
28 San Francisco, CA 94102
29 415-703-2236
30 CHO was present at 1128 Bennett Lane on October 23, 2017 and observed the
31 collection of PG&E equipment by CAL FIRE investigators.



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W43

James P FRANTZ

Frantz Law Group

3558 Round Barn Blvd, Suite 215

Santa Rosa, CA 95403

707-239-6316

FRANTZ can testify to two separate accounts of alternative origin areas for the Tubbs Fire, determined by outside investigators.

Attachment E, Vicinity Map, identifies the location of witnesses and their proximity to 1128 Bennett Lane.

INVESTIGATORS:

John MARTINEZ (MARTINEZ)

CAL FIRE, Battalion Chief

6059 Hwy 9

Felton, CA 95018

831-254-1720

Mark FRITS

CAL FIRE, Battalion Chief

604 Antelope Blvd.

Red Bluff, CA 96080

530-528-5199

Mike THOMPSON (M. THOMPSON)

CAL FIRE, Battalion Chief

6105 Airport Road

Redding, CA 96002

LE80 (Rev. 7/2011)

1 530-226-3477
2
3 Scott LOHSE
4 CAL FIRE, Fire Captain
5 604 Antelope Blvd.
6 Red Bluff, CA 96080
7 530-528-5199
8
9 Vince BERGLAND
10 CAL FIRE, Battalion Chief
11 1234 E. Shaw
12 Fresno, CA 93710
13 559-243-4115
14
15 Greg ROATH
16 CAL FIRE, Fire Captain
17 1809 Fairlane Road
18 Yreka, CA 96097
19 530-842-3516
20
21 Matt FRANKLIN
22 CAL FIRE, Fire Captain
23 3800 N. Sierra Way
24 San Bernardino, CA 92405
25 909-881-6922
26
27 Jeremy MONROE
28 CAL FIRE, Deputy Chief
29 Sacramento Headquarters
30 State Threat Assessment Center (STAC)
31 916-636-2920
LE80 (Rev. 7/2011)



1
2 Darren STEWART
3 CAL FIRE, Fire Captain
4 875 Cypress Avenue
5 Redding, CA 96001
6 530-225-2421
7
8 Kyle STEIS
9 CAL FIRE, Fire Captain
10 2210 West College Avenue
11 Santa Rosa, CA 95401
12 707-576-2341
13
14 Brandon BERTOLINO
15 CAL FIRE, Fire Captain
16 2210 West College Avenue
17 Santa Rosa, CA 95401
18 707-339-6618
19
20



5 - EVIDENCE:

A series of photographs were taken and are included in the attachments section D. Original photographs are stored as evidence on various media (DVD/SD card/thumb drive).

A series of photographs were collected from witnesses and are contained as attachments (see attachment D).

A series of video clips from fixed cameras and cellular phone was provided to and collected by investigators. Video clips have been placed on a thumb and stored as evidence.

Physical items of evidence were collected from the scene by Investigators. Refer to evidence log for a list of items collected (see attachment F).



6 – CONDITION(S):**Weather:**

Weather was not recorded by on scene resources the night of October 8, due to all responding resources commitment to the ongoing and developing fire emergency. For this reason weather conditions were extracted from two CAL FIRE weather stations in the area. Below are summaries of the Atlas Peak Remote Automated Weather Station (RAWS) and the Santa Rosa RAWS for October 8, 2017. The Atlas Peak weather station is at an elevation of 1934 feet and approximately 21 miles southeast from the Tubbs Fire origin. The Santa Rosa weather station is at an elevation of 576 feet and approximately 10 miles southwest from the Tubbs Fire origin. On October 8, 2017 at 9:00 P.M. the temperature at the Atlas Peak RAWS was 62 degrees, winds were out of the north/northeast at 13 mph with gusts to 30 mph. On October 8, 2017 at 9:00 P.M. the temperature at the Santa Rosa RAWS was 62 degrees, winds were out of the northeast at 15 mph with gusts to 41 mph.

Atlas Peak California

Daily Summary for

8-Oct-17

Hour of Day Ending at L.S.T.	Total Solar Rad. ° ly.	Wind			Air Temperature Mean Deg. F.	Fuel Temperature Mean Deg. F.	Fuel Moisture Mean Percent	Relative Humidity Mean Percent	Dew Point Deg. F.	Wet Bulb Deg. F.	Total Precip. inches
		Ave. mph	V. Dir. Deg	Max. mph							
1:00 AM	0	4	32	10	63	60	6.3	43	40	50	0
2:00 AM	0	5	26	8	63	60	6.8	45	41	51	0
3:00 AM	0	6	34	12	62	59	7	43	39	49	0
4:00 AM	0	4	68	13	61	58	7.1	39	36	48	0
5:00 AM	0	5	48	16	61	58	7.1	36	34	47	0
6:00 AM	0.3	6	49	13	62	58	7.3	35	34	47	0
7:00 AM	9.4	5	4	12	65	62	7.2	29	32	48	0
8:00 AM	26.8	8	359	14	65	68	7.2	29	32	48	0
9:00 AM	43.3	7	18	20	69	74	6.4	23	30	49	0
10:00 AM	56.9	10	12	21	71	77	6	21	29	49	0
11:00 AM	65.3	9	28	21	74	84	5.3	14	22	49	0
12:00 PM	68.5	10	20	23	74	84	4.7	13	20	48	0
1:00 PM	66.5	10	31	19	74	84	4.2	13	20	48	0
2:00 PM	58.8	10	30	21	74	83	3.9	14	22	49	0
3:00 PM	46.2	8	11	20	73	81	3.6	14	21	48	0
4:00 PM	30.3	5	5	18	71	76	3.5	15	21	47	0
5:00 PM	12.3	8	344	16	67	67	3.5	16	19	45	0
6:00 PM	0.4	9	0	19	64	62	3.7	16	17	43	0
7:00 PM	0	13	1	26	65	62	3.7	16	18	44	0
8:00 PM	0	11	29	32	64	62	3.7	15	15	43	0
9:00 PM	0	13	21	30	62	60	3.7	17	17	42	0
10:00 PM	0	13	14	28	62	59	3.9	16	15	42	0
11:00 PM	0	17	7	31	61	59	3.9	15	13	41	0
12:00 AM	0	14	18	32	60	58	3.9	16	14	41	0

1

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jm

Santa Rosa California

Daily Summary for

8-Oct-17

Hour	Total				Air	Fuel	Fuel	Relative			
of Day	Solar	Wind			Tempera	Tempera	Moisture	Humidity	Dew	Wet	Total
Ending at	Rad.	Ave.	V. Dir.	Max.	ture	ture	Mean	Mean	Point	Bulb	Precip.
L.S.T.	° ly.	mph	Deg	mph	Mean	Mean	Mean	Mean	Deg. F.		inches
					Deg. F.	Deg. F.	Percent	Percent			
1:00 AM	0	3	12	10	58	55	6.7	64	46	51	0
2:00 AM	0	5	355	13	57	54	7.1	62	44	50	0
3:00 AM	0	4	12	14	56	54	7.4	61	43	48	0
4:00 AM	0	2	39	11	55	53	7.8	61	42	48	0
5:00 AM	0	6	4	14	56	53	8.1	58	41	48	0
6:00 AM	0.2	5	358	10	55	52	8.4	59	41	47	0
7:00 AM	7.2	2	303	11	59	60	8.5	52	41	49	0
8:00 AM	21.5	2	236	8	64	70	8.9	47	43	52	0
9:00 AM	34.1	3	286	9	69	79	8.7	36	41	53	0
10:00 AM	47.7	4	256	7	73	85	8	31	41	54	0
11:00 AM	55.9	4	233	9	77	89	7.3	27	40	56	0
12:00 PM	59.3	14	68	24	82	88	7.2	9	18	51	0
1:00 PM	56	8	65	19	84	94	6	6	10	51	0
2:00 PM	51	8	52	22	84	86	5.9	4	1	49	0
3:00 PM	30.3	7	47	16	83	85	5.4	5	5	50	0
4:00 PM	25.1	11	62	24	79	81	4.9	9	15	49	0
5:00 PM	9.4	10	55	27	75	73	4.7	12	19	48	0
6:00 PM	0.3	6	55	23	72	69	4.6	13	18	47	0
7:00 PM	0	5	37	21	72	68	4.6	14	20	47	0
8:00 PM	0	11	48	30	72	69	4.6	12	17	47	0
9:00 PM	0	15	52	41	71	69	4.6	11	14	46	0
10:00 PM	0	14	41	40	71	69	4.5	11	14	46	0
11:00 PM	0	24	58	51	70	69	4.5	11	13	45	0
12:00 AM	0	24	59	53	70	69	4.4	11	13	45	0



1 **7 – EQUIPMENT:**

2

3 Pacific Gas & Electric (PG&E) and privately owned electrical equipment was collected
4 as evidence. Refer to evidence log (see attachment F) for a list of items collected.

5

8 - PROPERTY:

The Tubbs Fire originated on the following property:

APN: 017-120-005-000

Address: 1128 Bennett Lane, Calistoga, CA 94515

Owner: [REDACTED]

Mailing Address: [REDACTED]

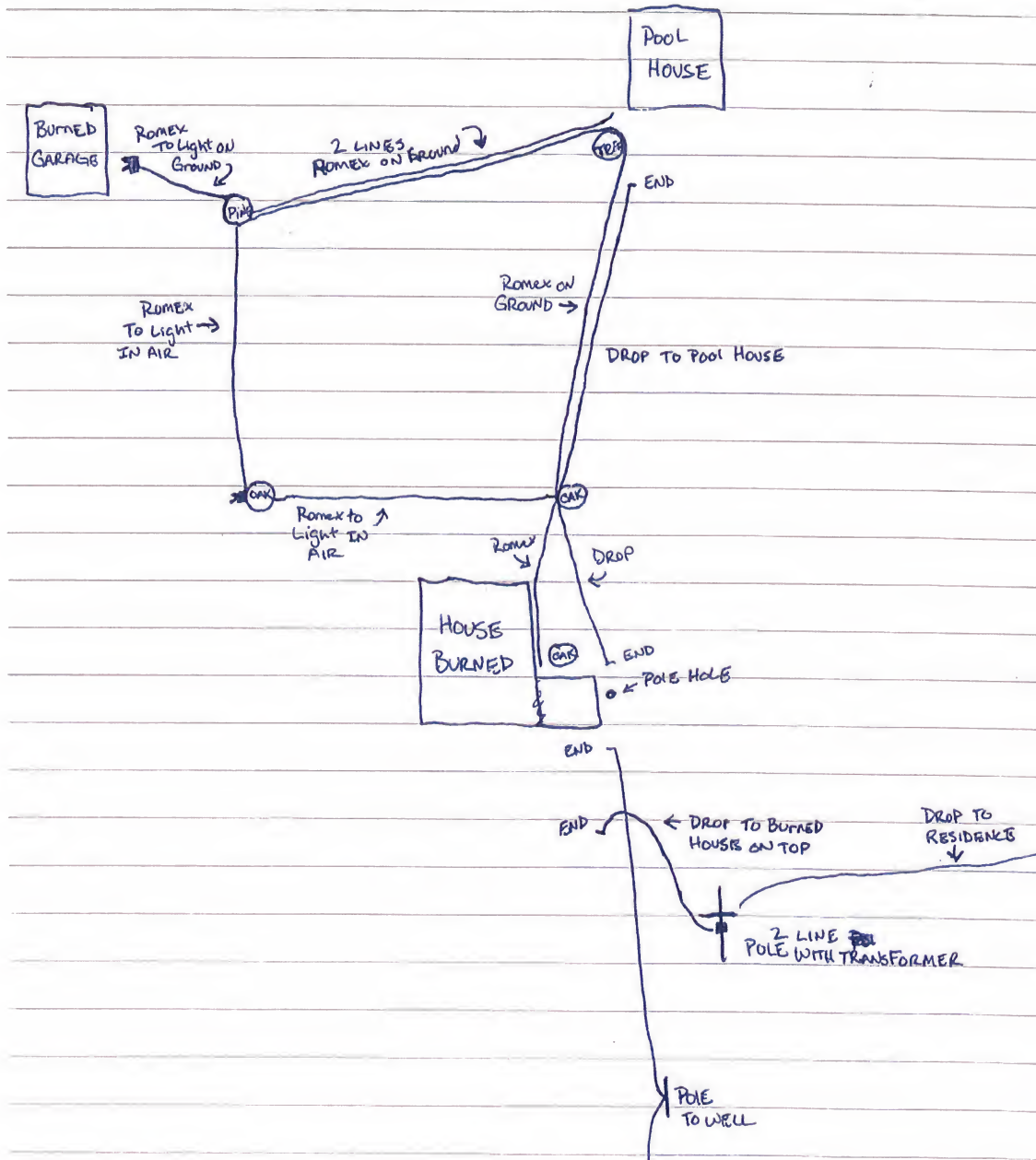
The 1128 Bennett Lane property is an approximately 10.5-acre parcel situated in Napa County, approximately three miles north of Calistoga. Bennett Lane can be accessed from both Hwy 128 and Tubbs Lane. The entrance to the property is from a paved driveway off Bennett Lane identified by an address marker labeled "1128." The surrounding area is rural residential setting and homes on larger parcels surrounded by mixed oak and conifer woodlands and vineyards. The 1128 Bennett property is largely undeveloped except for the upper slopes where the residence and associated outbuildings were located. The driveway continues up a south facing slope through oak woodlands, until it reaches a large one-half acre clearing below and east of the primary residence. Within the clearing, there are scattered conifers and oaks and little to no ground vegetation. Also within the clearing are both PG&E and privately owned utility poles.

The driveway continues past the cleared area and leads to the upper elevation of the property (approximately 550-foot elevation) where the residence and associated structures sit on top of a hill. The primary residence is located at the end of the driveway. Northwest of the residence is a wine cellar with an attached bedroom. Immediately west of the wine cellar is a swimming pool with an attached open construction pool patio. West of the residence is an open carport and garage. According to accessor parcel data, the residence was built in 1946. The electrical distribution associated with the property includes PG&E service from Bennett Lane uphill to the residence, by service drop to a weather head on the roof. From there, exterior conduit connects to the meter. From the meter, conduit carries conductor to a

1 privately-owned power pole (private pole 3). From private pole 3, conductor extends
2 north west towards the wine cellar and pool patio. Additionally, from private pole 3,
3 conductor extends southeast towards private pole 2, then to private pole 1 where the
4 water tanks and pump station are located. From private pole 1, conductor extends
5 downhill where it ties into a well next to Bennett Lane. The graphic below includes a
6 general representation of the developed property at 1128 Bennett Lane with a general
7 schematic of the electrical system.



The graphic below includes a general representation of the private electrical system at 1128 Bennett Lane prepared by ROATH.



9 - NARRATIVE:

On the evening of Sunday, October 8, 2017, a red flag warning was in effect throughout the North Bay including Napa County. Temperatures that evening were in the 60's to lower 70's, with humidity in the 10-18% range. Wind models prepared by CAL FIRE Northern Operations predictive services later estimated ridgetop winds could have reached 55 to 90 mph (see attachment A). At approximately 9:41 P.M., M. HICKMAN, a resident of Calistoga, CA reported a fire occurring in the area of Hwy 128 and Tubbs Road (see attachment B). The fire was named the Tubbs Fire and eventually burned 36,807 acres in both Napa and Sonoma Counties and destroyed 5636 structures including 4651 residential structures, 94 commercial properties and 891 outbuildings. The fire damaged an additional 230 residential structures, 22 commercial structures and 65 outbuildings (see attachment C). The Tubbs Fire included 22 civilian fatalities.

Monday October 9, 2017

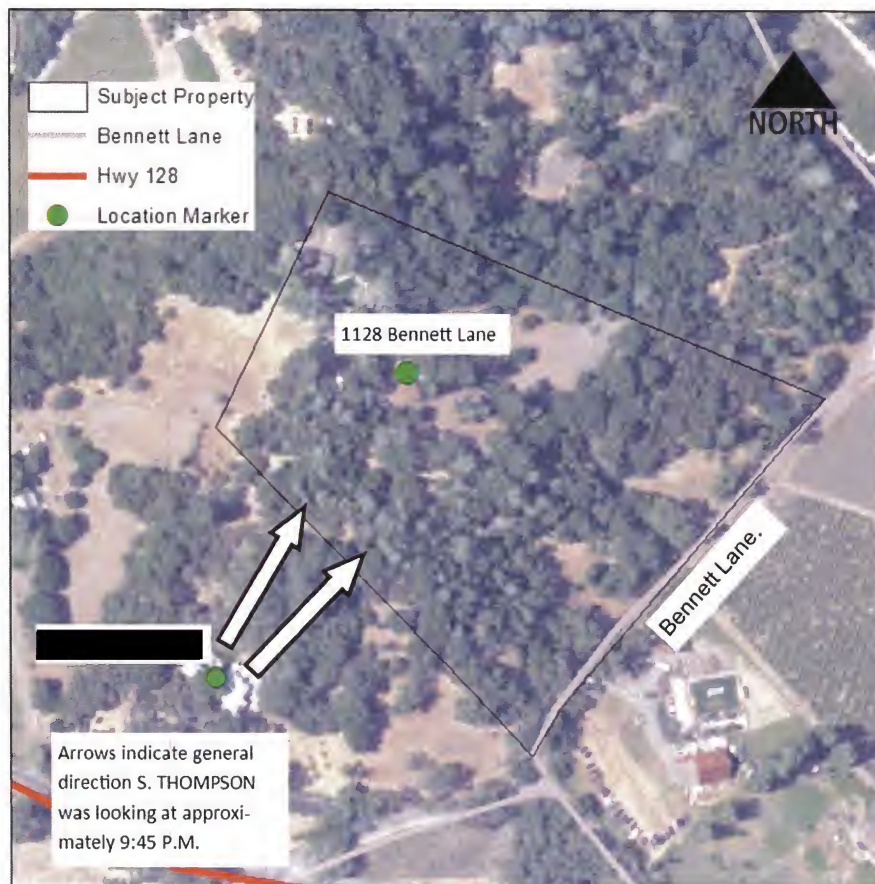
On Monday, October 9, 2017 at approximately 1:00 A.M., CAL FIRE Battalion Chief Mark FRITS responded from Red Bluff to the Tubbs Fire to conduct an origin and cause investigation. Due to the high number of fires in Sonoma and Napa Counties, there were no local Investigators available to respond to the Tubbs Fire on the evening of October 8, 2017. FRITS arrived in the area of Bennett Lane and Hwy 128 at approximately 9:20 A.M., when he began walking and observing fire pattern indicators along Bennett Lane. Sometime after 9:20 A.M., FRITS was contacted by Ron RISI (R. RISI) who lives at [REDACTED]. The following is a summary of his conversation with R. RISI (see attachment G, FRITS):

R. RISI was contacted by his neighbor Shawn THOMPSON (S. THOMPSON) sometime after 9:00 P.M., who told him there was a fire and to get out of the house. R. RISI exited his property and turned north on Bennett Lane. R. RISI noticed the fire was to the south of his residence on the west side of Bennett Lane. He could not confirm how far down on Bennett Lane or how close to his residence the fire was.

1 While on Bennett Lane north of the 1128 Bennett Lane driveway, FRITS observed what
2 he thought to be a Pacific Gas & Electric (PG&E) pole next to a fence with PG&E
3 conductor running uphill. He also observed an oak tree with a junction box with
4 conductor running uphill. Not knowing an origin area yet and with limited witnesses, he
5 chose to flag off an area approximately 15-feet by 15-feet surrounding the pole and
6 fence line to maintain the scene integrity should it prove to be of significance
7 (Photograph P-JM-MF-25). FRITS observed backing indicators showing the fire was
8 spread downhill on the west side of Bennett Lane in the area of the 1128 Bennett Lane
9 driveway. When FRITS came to the 1200 Bennett Lane, he made his way up the
10 driveway where he observed fire pattern indicators including angle of char on stumps of
11 trees indicating the fire was backing against the wind towards the residence. Between
12 the 1128 and 1200 Bennett Lane driveways FRITS observed fire patterns indicating the
13 fire backed into the wind from the southeast of the cleared area near the driveway of
14 1128 Bennett Lane. FRITS observed advancing fire pattern indicators to the southwest
15 of the 1128 Bennett Lane driveway. While on Bennett Lane, FRITS was contacted by
16 S. THOMPSON who lives at [REDACTED] S. THOMPSON told FRITS the
17 following in summary (see attachment G, FRITS):

18
19 S. THOMPSON was sleeping at his residence at approximately 9:45 P.M., when he was
20 woken up by his smoke alarms going off. He observed the fire burning toward the back
21 of his house from the northeast.

22
23 The 1128 Bennett Lane property is the next adjoining property to the northeast from the
24 S. THOMPSON property. A fire spreading towards the S. THOMPSON residence from
25 his description would likely have come from or passed through the 1128 Bennett Lane
26 property. The graphic below, prepared by MARTINEZ, is a representation, based on
27 the witness statement, showing where the witness was and what direction he was
28 looking.



1
2 FRITS then spoke with Roger LUTZ (R. LUTZ) who works for the Deer Park Volunteer
3 Fire Department at Station 21. R. LUTZ told FRITS the following in summary (see
4 attachment G, FRITS):

5
6 R. LUTZ arrived on scene on Engine 221 and began cooling down power poles on the
7 west side of Bennett Lane working towards the north. He worked to the driveway of
8 1200 Bennett Lane and the fire had not yet spread north to the driveway. When he
9 accessed the residence at 1200 Bennett Lane, the fire was backing downhill from the
10 southeast toward the rear of the residence. The fire was also backing to the northeast
11 on the northwest side of the driveway. Once the fire became established in the draw
12 below the residence he left the scene. R. LUTZ was provided a LE-78 witness
13 statement which he completed on October 9, 2017 (see attachment H).

14
15 The 1128 Bennett Lane property is the first adjoining property to the south of 1200

1 Bennett Lane. A fire spreading northeast towards 1200 Bennett Lane would likely have
2 come from or passed through the 1128 Bennett Lane property.

3
4 While at the intersection of Bennett Lane and Hwy 128, FRITS spoke with Calistoga
5 Fire Department Fire Captain Jason TAMAGNI, assigned to Engine 419, who told him
6 the following (see attachment G, FRITS):

7
8 TAMAGNI told FRITS when he arrived at scene on October 8, 2017, that the fire was
9 spreading from the north of Bennett Lane to the south of Hwy 128 at a rapid rate of
10 spread. TAMAGNI completed a LE-78 witness statement on October 9, 2017. Also
11 present with TAMAGNI on the engine was Jaime OROZCO who also provided a LE-78
12 witness statement (see attachment H).

13
14 FRITS continued observing fire pattern indicators on the north side of 1110 Bennett
15 Lane. There, he observed fire patterns, indicating the fire advanced toward the south
16 and rear of the residence. FRITS continued observing advancing fire pattern indicators
17 leading him to the partially fire damaged carport on the 1128 Bennett Lane property.

18
19 On October 9, 2017, at approximately 11:00 A.M., I was dispatched to the Sonoma
20 Lake Napa Unit (LNU) to assist the Unit in a manner which was not yet determined
21 when I responded.

22
23 On October 9, 2017 at approximately 2:30 P.M., I arrived in Napa County and
24 responded to the Tubbs Fire where I contacted FRITS, who was continuing his
25 investigation and had yet to determine a General Origin Area (GOA) for the fire. FRITS
26 briefed me verbally on the witness statements provided by R. RISI, S. THOMPSON, R.
27 LUTZ, and TAMAGNI, which placed the fire origin north of 1110 Bennett Lane and
28 southwest of 1177 Bennett Lane. Based on the initial witness statements, FRITS
29 hypothesized the fire may have originated from the 1128 Bennett Lane property.
30 I walked the fire edge with him and discussed the reasons for his determination. I
31 observed fire pattern indicators such as angle of char, curling, and white ash

1 accumulation on the protected side (due to high winds), indicating the fire generally
2 backed down slope, against the wind towards the west side of Bennett Lane, in a
3 northeast direction. I also observed advancing fire pattern indicators south of the
4 residence, above 1110 Bennett Lane. Angle of char and needle freeze could be
5 observed in the canopies of pine trees and on lower ground vegetation. These
6 observations are consistent with S. THOMPSONS statement describing the fire
7 advancing from the 1128 Bennett Lane towards his residence at [REDACTED] Bennett Lane. It
8 was still very early in the investigation and FRITS and I were still becoming familiar with
9 the overall area based on limited witness statements and had not taken any
10 photographs or placed any colored pin flags identifying fire pattern indicators observed.

11
12 After considering FRITS' initial observations, early witness statements and my own
13 observations, I concurred the GOA was likely located on or adjacent to the property
14 identified as 1128 Bennett Lane. FRITS flagged the entrance to the driveway of 1128
15 Bennett Lane. FRITS included 1110 Bennett Lane because of its proximity to 1128
16 Bennett Lane. Both driveways were secured with yellow flagging labeled "DO NOT
17 ENTER".

18
19 FRITS and I designated an approximate one-half acre dirt field adjacent to the 1128
20 Bennett Lane pump station, as a parking and meeting location. The field was void of
21 ground vegetation and parking vehicles in it would not impact the investigation. There
22 was no private security available to keep people off the property, so FRITS remained at
23 1128 Bennett Lane overnight. Starting on October 10, 2017 and throughout the entirety
24 of the investigation, Brothers In Arms Security maintained scene security, and were
25 instructed to not allow anyone access, from the time the investigation team left in the
26 evening until they returned the next morning, each day until investigators released the
27 scene at approximately 5:00 PM on October 25, 2017. Each and every morning, it was
28 confirmed with the security guard that no persons had entered the property between the
29 time the investigation team left and returned.

30
31 **Tuesday October 10, 2017**

1
2 On Tuesday, October 10, 2017, I returned to 1128 Bennett Lane, arriving at
3 approximately 8:00 A.M. I met with FRITS and we began placing fire pattern indicator
4 flags. Colored pin flags were placed at the observed fire pattern indicators, including
5 red for advancing fire, blue for backing and yellow for lateral spread. Photographs
6 referenced in this section were not taken until later, however, they have been used to
7 reference our observations. FRITS and I entered the burned area on the hillside on the
8 northside of Bennett Lane and walked parallel to the road. I observed fire pattern
9 indicators showing fire backing downhill towards Bennett Lane in a northeast trending
10 direction. This was evident from cupping (see attachment D, MARTINEZ photograph: P-
11 JM-108), ash accumulation on leeward side (see attachment D, MARTINEZ
12 photograph: P-JM-112), leaf curling and staining on rocks (see attachment D,
13 MARTINEZ photograph: P-JM-107). Also observed was needle freeze angled towards
14 the southwest indicating strong winds out of the northeast. These fire pattern indicators
15 were consistent along the bottom of the hillside as well as continuing uphill towards the
16 1128 Bennett Lane residence. We walked back and forth along the hillside while
17 working uphill in a serpentine pattern, observing fire pattern indicators until we arrived at
18 a developed area containing a water pump station, near where we had parked. The
19 developed area was along the right side of the 1128 Bennett Lane driveway,
20 approximately two-thirds up towards the residence. Within the developed area next to
21 the driveway I observed (2) water tanks and water pump system (pump station). One
22 was a newer looking water tank and pump and one was as an older looking cement
23 tank. In addition, I observed a 4-inch by 4-inch wooden post approximately 6-feet in
24 height with (2) grey metal electrical boxes attached to it, one approximately 6-inches by
25 8-inches, and the other approximately 12-inches by 18-inches. Approximately 30-feet
26 away there was a utility pole (private pole 1), which didn't appear to be a PG&E pole
27 due to its appearance. The conductor associated with the pole did not appear
28 professionally installed (see attachment D, MARTINEZ photograph: P-JM-35). The pole
29 did not appear to be related to the PG&E pole 3 observed in the cleared area to the
30 west where our vehicles were parked. The conductor from private pole 1 continued
31 downhill towards Bennett Lane and uphill towards the 1128 Bennett Lane residence.

1 The conductor which extends downhill towards Bennett Lane connects to a switch box
2 on an oak tree where it appeared to provide power to an old well. This area was
3 flagged off earlier by FRITS on October 9 prior to identifying fire burn patterns in the
4 area.

5
6 There were various lengths of conductor and structural wiring associated with the
7 wooden post and private pole 1, much of it under tension from a tree which had fallen in
8 the immediate area. Fire behavior in this area appeared to be low intensity (see
9 attachment D, MARTINEZ photograph: P-JM-42), with the exception being the wooden
10 post and private pole 1. The lower half of the wooden post was partially burned,
11 however the section of post near the electrical boxes was heavily charred (see
12 attachment D, MARTINEZ photograph: P-JM-19). An oak tree had fallen on the post
13 breaking it just below the electrical box. Closer examination of the tree indicated it had
14 fallen after the fire, due to the absence of any fire damage to the tree, specifically
15 undamaged foliage in contact with the ground (see attachment D, MARTINEZ
16 photograph: P-JM-MF-64). The wooden post and electrical boxes were discussed as
17 potential competent ignition sources, and were candidates to be reviewed by an
18 electrical engineer. Observations by an electrical engineer will be discussed later.

19
20 We walked south from the clearing where we parked, along the edge of the property
21 where it broke in slope and noted advancing fire pattern indicators such as angle of char
22 and needle freeze on pine trees, below the carport and to the area immediately to the
23 east, indicating fire progression from the north, in line with the winds the night of the fire
24 (see attachment D, MARTINEZ photograph: P-JM-127). This is consistent with S.
25 THOMPSONS witness statement. We then walked the area north of the 1128 Bennett
26 Lane residence, in a serpentine pattern towards the 1200 Bennett Lane property and
27 observed fire pattern indicators on vegetation and rocks including angle of char, white
28 ash, and staining. These indicators showed the fire both backed and laterally moved
29 northwest behind the residence towards the wine cellar and pool area before backing
30 towards 1200 Bennett Lane.

1 FRITS and I considered the general fire pattern indicators in the area, and requested an
2 electrical engineer to review the electrical system at the water tanks and pump station.

3
4 FRITS and I considered this area as a possible GOA, however the surrounding property
5 had not yet been reviewed in detail. In order to maintain the integrity of the scene we
6 flagged off an area with yellow "do not enter" flagging approximately 50-feet by 50-feet
7 to include the pump station and private pole 1. At approximately 2:20 P.M., I
8 photographed both the perimeter and interior of the flagged area (see attachment D,
9 MARTINEZ photographs: P-JM-1 thru P- JM-25).

10
11 I began photographing the surrounding area, including Bennett Lane between Hwy 128
12 and the 1128 Bennett Lane property. (see attachment D, MARTINEZ photographs: P-
13 JM-MF-01 thru P-JM-MF-79).

14
15 At approximately 3:30 P.M. electrical engineer Marc RHODES arrived at 1128 Bennett
16 Lane. We were interested in having him do an initial examination of the area associated
17 with the pump station. RHODES said he didn't see anything that stood out to him, and
18 thought the electrical boxes were closed tight enough where, even if there was a
19 problem inside, it wouldn't have been hot enough to ignite the wooden post. RHODES
20 also inspected private pole 1 and the associated electrical conductor. RHODES
21 observed what he thought was evidence of arcing on a conductor near the top of the
22 pole on a section of conductor continuing downhill to Bennett Lane. Utilizing both
23 binoculars and a camera, we agreed there appeared to be a small piece of shiny
24 material on a section of conductor from the pole that continued downhill towards
25 Bennett Lane. I took photographs in an attempt to observe the material from the ground
26 (see attachment D, MARTINEZ photographs: P-JM-26 thru P-JM-35).

27
28 After inspecting private pole 1, we followed the conductor extending downhill to a
29 switchbox on a large oak tree next to Bennett Lane and near a roadside PG&E pole
30 (PG&E pole 1). I observed the switchbox on the oak tree to be in the "off" position.

31 RHODES inspected the box and confirmed it was in the off position (see attachment D,
LE80 (Rev. 7/2011)

MARTINEZ photograph: P-JM-cellular-05). The inside of the box was severely damaged from fire. RHODES left the scene at approximately 6:15 P.M. RHODES became unavailable and did not return to the scene or prepare a report.

Wednesday, October 11, 2017

On Wednesday, October 11, 2017, I returned to the 1128 Bennett Lane at approximately 8:00 A.M. Prior to my arriving at scene, FRITS drove to Wheeler Farms at 1240 Bennett Lane and spoke with Luis VARGAS. The following is a summary of the conversation:

VARGAS lives on the Wheeler Farms property at [REDACTED] Bennett Lane. On the evening of October 8, 2017 at an unknown time, VARGAS went outside his house and noticed fire to the south of Bennett Lane. The fire had not yet burned onto the Wheeler Farm. The wind was erratic and very gusty. VARGAS said the fire burned to the north on the east side of the property and then wrapped around the property to the west.

After meeting with VARGAS, FRITS returned to 1128 Bennett Lane and telephoned M. HICKMAN who told FRITS the following in summary (see attachment G, FRITS):

On the evening of October 8, 2017, M. HICKMAN was at her residence at [REDACTED] [REDACTED] when her daughter told her she saw a bright light and then an orange glow through the window. M. HICKMAN looked out her bathroom window and she could see the fire through the trees to the north of her residence.

At approximately 1:30 P.M., FRITS was released from the Tubbs Fire due to a previously planned commitment. I was assigned the role of lead investigator for the Tubbs Fire.

CAL FIRE Battalion Chief Mike THOMPSON (M. THOMPSON) arrived at scene and assisted me with continuing the origin and cause investigation. I briefed M.

1 THOMPSON on the progress to date. We walked downhill in a serpentine pattern
2 between the pump station and Bennett Lane, observing fire pattern indicators. M.
3 THOMPSON inspected the switchbox on the oak tree and determined it was no longer
4 in service, and may have been related to an older system. After walking the powerlines
5 on the property, we determined the power supply for the newer pump station came
6 directly from the residence. The pump switch adjacent to the water tanks was in the
7 "on" position. Mike ANDREWS, the maintenance person for the property, later
8 confirmed the pump was always turned "on" and was operational.

9
10 At approximately 2:40 P.M. I took photographs of private pole 1 and the surrounding
11 area (see attachment D, MARTINEZ photographs: P-JM-36 thru P-JM-46).

12
13 We then continued identifying fire pattern indicators such as staining (see attachment D,
14 MARTINEZ photographs: P-JM-68 and P-JM-69) and protection (see attachment D,
15 MARTINEZ photographs: P-JM-70) within the flagged water tank/pump station area,
16 immediately north of the electrical boxes. We continued identifying fire pattern
17 indicators working our way from the edge of the flagged area in towards private pole 1
18 and the electrical boxes. Backing indicators such as cupping were observed adjacent to
19 the cement water tank (see attachment D, MARTINEZ photograph: P-JM-73).
20 Advancing indicators such as staining was observed south of the electrical boxes (see
21 attachment D, MARTINEZ photographs: P-JM-74 and P-JM-75). We noted the top of
22 private pole 1 had more fire damage than the lower portion (see attachment D,
23 MARTINEZ photographs: P-JM-35 thru P-JM-40). The high level of damage to private
24 pole 1 appeared out of place considering the low intensity burn to ground fuels in the
25 immediate area.

26
27 Fire pattern indicators were limited in the area, due to the approximate one-half acre
28 cleared area northwest of the pump station (see attachment D, MARTINEZ
29 photographs: P-JM-MF-43 thru P-JM-MF 44). Lack of fire pattern indicators in the
30 immediate area made it difficult to determine with complete certainty whether this was
31 the GOA. However, considering RHODES opinion of having observed possible arcing

1 on conductor associated with private pole 1, I had to include this area as a potential
2 GOA. Based on this, we discussed the need to have a second electrical engineer re-
3 examine both the electrical boxes and the conductor associated with private pole 1. I
4 requested through CAL FIRE Assistant Chief Shawn ZIMMERMAKER, a truck with a
5 boom so I could closely observe the conductor on private pole 1. I was advised a boom
6 truck would be available the next day.

7
8 **Thursday, October 12, 2017**
9

10 On Thursday, October 12, 2017, I returned to 1128 Bennett Lane at approximately 8:00
11 A.M. and continued working in the flagged area at the pump station. I photographed the
12 areas immediately surrounding the electrical boxes and private pole 1 (see attachment
13 D, MARTINEZ photographs P- JM-47 thru P-JM-79). CAL FIRE Fire Captain Scott
14 LOHSE arrived at the incident at 9:15 A.M. to assist with the investigation. He was
15 briefed on the investigation and then walked the property to become familiar with it and
16 to make independent observations.

17
18 At approximately 10:30 A.M. a Britton Tree Services, Inc truck with boom and crew
19 arrived on scene. Their truck was equipped with a bucket extension allowing me to
20 observe private pole 1. When they arrived on scene I briefed them on their assignment.
21 I assigned them to assist in the removal of the tree which had fallen on the electrical
22 boxes in the pump station area.

23
24 Using the tree service boom and bucket, I was lifted to private pole 1 and was able to
25 examine and photograph from a closer vantage point, (see attachment D, MARTINEZ
26 photographs P-JM-80 thru P-JM-88). I did not observe any obvious evidence of arcing
27 on any of the wiring associated with the pole. The "shiny" material identified earlier by
28 RHODES as possible evidence of arcing, appeared to be melted and discolored yellow
29 jacketed conductor, having the appearance of being shiny. It would later be collected
30 as evidence (evidence items E-35, E-36, and E-37).

At approximately 1:00 P.M. I photographed and took waypoints of colored fire pattern indicator pin flags placed by myself and FRITS (see attachment D, MARTINEZ photographs P-JM-91 thru P-JM-114, referenced earlier in report).

At approximately 5:00 P.M., I carefully searched the area immediately below the electrical box and post. As I searched the approximate 2-foot area surrounding the 4-inch by 4-inch post using a magnet, I located a small piece of golden colored metal. It did not appear to be melted. The metal piece, or wire fragment was found approximately 8 inches from the post, to the north. I photographed and collected the item as evidence (Evidence item "A"). Later, to be consistent with our overall evidence collection standards, it was renamed Evidence Item 38 (see attachment D, MARTINEZ photographs P-JM-116 and P-JM-117).

Friday, October 13, 2017

On Friday October 13, 2017, I returned to 1128 Bennett Lane at approximately 7:45 A.M. and met with LOHSE. I tasked LOHSE with contacting and interviewing potential witnesses to the incident. At approximately 9:15 A.M. I met with the CAL FIRE Light Detection and Ranging (LIDAR) team Survey Party Chief David KAROLY. I briefed KAROLY and his team on their assignment. I asked them to document our current scene, to include the flagged area, the associated PG&E and private utility poles and the southern aspect of the residence on the property. I asked them to capture as much of the north facing hill-side between the pump station and Bennett Lane, which would include the electrical system from the residence to Bennett Lane.

At 10:06 A.M., LOHSE contacted YANT by phone. YANT provided photographs via text message of when she received a report of the fire (see attachment D, LOHSE Photographs P-SL-332 thru P-SL-334).

At 10:23 A.M., LOHSE interviewed Susan SWENSON (S. SWENSON) via cellular phone. S. SWENSON is the daughter of Anne ZINK, the owner of the 1128 Bennett

1 Lane property. ZINK lives in Palm Springs and [REDACTED] S
2 SWENSON told LOHSE the following in summary (see attachment G, LOHSE):

3
4 S. SWENSON had not been on the property since September 3, 2017 and is unaware
5 of any problems associated with the property. ANDREWS is on the property at least
6 once per week to make sure everything is working properly and maintained. Duke
7 SWENSON (D. SWENSON) is the son of ZINK and also has access to the property. D.
8 SWENSON lives in Cupertino, CA and hasn't been to the property in one year.

9
10 At 12:49 P.M., LOHSE spoke with ANDREWS, who is the primary care taker for the
11 1128 Bennett Lane property and has been for 27 years. Some of his duties include
12 maintaining defensible space and the buildings on the property. He usually checks the
13 property once per week. ANDREWS entered the property the day after the fire, on
14 October 9, 2017 and took photographs using his cellular phone which he later provided
15 to LOHSE (see attachment D, LOHSE photographs: P-SL-319 thru P-SL-331).

16 ANDREWS noticed the 4-inch x 4-inch post associated with the pump electrical box, still
17 in a standing position when he was there on October 9. ANDREWS noted there were a
18 number of trees which had fallen after the fire had passed (see attachment G, LOHSE).
19 This was consistent with observations made at scene by investigators noting numerous
20 fallen trees with no burn damage to the tree surface in contact with the ground

21
22 While the LIDAR team did their work, LOHSE and I drove to the Lucinda YANT
23 residence at [REDACTED]. LOHSE had received digital photograph's taken by YANT
24 on October 8, 2017, taken at 9:51 P.M. (see attachment D, LOHSE photographs: P-SL-
25 332 through 334), showing the fire advancing from the northeast towards her residence.
26 LOHSE and I compared the photograph's taken at night with daytime conditions and
27 confirmed the photograph was taken from her porch and fire appeared to be advancing
28 from the northeast towards her residence (see attachment D, Witness photographs:
29 Photo Comparison 2 and 3). We observed fire pattern indicators such as needle freeze
30 and angle of char showing fire advancing from the slope below the 1128 Bennett Lane
31 property towards the YANT residence (see attachment D, MARTINEZ photographs: P-

1 JM-122 JM thru P-JM-127).

2
3 ZIMMERMAKER arrived at scene at approximately 1:00 P.M. to check on our needs
4 and the progress of the investigation. I requested an electrical engineer to re-examine
5 the pump station and private pole 1 as a potential ignition source.

6
7 ZIMMERMAKER advised me about Napa Police Department Officer Amy HUNTER,
8 who may have had information on a suspicious person reported to be in the area the
9 day of the fire. I would contact her the following day. LIDAR completed their scanning
10 at approximately 6:00 P.M. and we all left the scene.

11
12 At 10:30 P.M. LOHSE interviewed CAL FIRE Battalion Chief Gino DEGRAFFERIED via
13 cellular phone. DEGRAFFERIED was the CAL FIRE Battalion Chief on scene of the
14 Tubbs Fire. He estimated he arrived at Bennett Lane and Hwy 128 approximately 20
15 minutes after the initial dispatch (approximately 10:00 P.M.). DEGRAFFERIED
16 estimated the winds to be approximately 40 miles per hour with gusts at approximately
17 50 miles per hour. He estimated the fire was approximately 100-feet wide upon his
18 arrival and was backing to the north. He was positive it started east of Hwy 128
19 because it could not have backed against the wind to the west and across Hwy 128. He
20 provided a google image with a drawing showing his estimation of the fire size when he
21 arrived (see attachment D, LOHSE photographs: P-SL-343).

22
23 **Saturday, October 14, 2017**

24
25 On Saturday, October 14, 2017, I returned to 1128 Bennett Lane at approximately 7:45
26 A.M. I was advised by ZIMMERMAKER that electrical engineer Jim NOLT and a truck
27 with a boom would be arriving at 1128 Bennett Lane later in the morning to re-examine
28 the electrical boxes near the pump station and the conductor associated with private
29 pole 1.

30
31 LOHSE met with Calistoga Fire Department Fire Captain Jason TAMAGNI at 10:00

1 A.M. TAMAGNI told LOHSE the following in summary (see attachment G, LOHSE):

2
3 TAMAGNI and Engineer Jaime OROZCO were the first fire agency personnel to arrive
4 on scene on Engine 419, after the arrival of Calistoga Police Department Officer
5 HOSKINS. HOSKINS arrived at approximately 9:48 P.M. HOSKINS told TAMAGNI the
6 fire was approximately 3 acres in size with a rapid rate of spread. From Hwy 128 and
7 Bennett Lane, the fire did not appear to be on the east side of Bennett Lane. The fire
8 was moving rapidly to the southwest. LOHSE explained to TAMAGNI what
9 DEGRAFFERIED had told him about the fire being 100-feet wide. TAMAGNI
10 commented on DEGRAFFERIED's statement, stating the fire was further up the hill at
11 Hwy 128 and Bennett Lane and appeared to be coming down and sideways along the
12 hill from the northeast to the southwest. The structure at 1110 Bennett was surrounded
13 by fire when he arrived. The northeast side of the fire had not yet reached the driveway
14 to 1128 Bennett Lane. The northeast side of the fire was burning slowly against the
15 wind, perpendicular to Bennett Lane.

16
17 A boom truck arrived at approximately 10:30 A.M. and was put on standby. NOLT
18 arrived at approximately 11:30 A.M. I briefed NOLT on the investigation and
19 accompanied him while he inspected the site. NOLT conducted an assessment of the
20 electrical system on the property, including the residence and all utility poles on the
21 property. NOLT's initial impression of the residential structure and associated electrical
22 components was there was little he could comment on due to the high degree of
23 damage from the fire. NOLT noted the presence of melted aluminum and copper
24 suggesting temperatures in excess of 1900 degrees Fahrenheit. NOLT did not observe
25 any obvious problems with any of the public utility lines which were not consumed by
26 the fire. There were signs of melted conductor observed near the backside of the
27 primary residence, however, there was no evidence of arcing observed.

28
29 NOLT inspected the electrical boxes at pump station and private pole 1. NOLT
30 inspected both the interior and exterior of the electrical box and did not observe any
31 evidence of electrical failure. Upon seeing the interior of the electrical box, he stated it

1 was "baked", explaining the interior damage to the box appeared to be the result of
2 external heat from the vegetation fire. Additionally, he did not observe signs of arcing
3 on the conductors associated with private pole 1. NOLT left the scene at approximately
4 1:00 P.M. In a report provided by NOLT, he describes the electrical hardware in this
5 area, including the electrical boxes and associated conductor, as showing secondary
6 damage from fire and/or heat, but not from electrical activity such as arcing (see
7 attachment Q).

8
9 After speaking with NOLT, and determining there was no evidence supporting an
10 electrical ignition source at the pump station or private pole 1, I continued with
11 expanding the scope of the investigation to include the entire property. Additional
12 investigators were requested to assist with the origin and cause investigation.
13 ZIMMERMAKER advised additional investigators would respond to assist as they
14 became available.

15
16 At 2:10 P.M., I spoke with HUNTER with the Napa Police Department. She had
17 information about an individual named Tyler FUNES, who was picked up hitchhiking the
18 day of the fire. He was picked up near Silverado Trail and Middletown Road around
19 7:00 P.M. According to HUNTER, he is known to start campfires. He told the persons
20 who picked him up he had been hiking at Mt. Saint Helena State Park during the day.
21 The location and time FUNES was picked up is inconsistent with the start time of the
22 fire. There were no indicators of a camp fire in the GOA, therefore FUNES was
23 eliminated as a person of interest in the TUBBS Fire.

24
25 At 5:45 P.M., I contacted Dale HOSKINS with the Calistoga Police Department, who
26 was the initial first responder to arrive at the scene of the fire. HOSKINS told me the
27 following in summary:

28
29 HOSKINS was dispatched to a report of a fire on Lerner Drive in Calistoga, and arrived
30 at Lerner Drive to find the fire extinguished. Already in the area, he heard the dispatch
31 for a report of a fire on Hwy 128 cross of Tubbs Lane. Lerner Drive is approximately 2.5
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1 miles from 1128 Bennett Lane. HOSKINS responded to the area and could see a large
2 glow. He updated the location of the fire to Hwy 128 and Bennett Lane, arriving there at
3 9:48 P.M. Upon arrival, HOSKINS immediately took a photograph using his cellular
4 phone from Hwy 128 and Bennett Lane looking towards the hillside below the 1110
5 Bennett Lane residence (see attachment D, HOSKINS photograph, and photograph: P-
6 JM-cellular-04 and, Comparison Photo 1). The image shows fire on both sides of Hwy
7 128 as well as fire appearing to be backing in a line towards the northeast below the
8 1110 Bennett Lane residence. The fire had not crossed to the south side of Bennett
9 Lane, nor had it backed to the driveway to 1128 Bennett Lane. HOSKINS stated he
10 would provide a Calistoga Police Department report of his actions the night of October
11 8, 2017 (see attachment I).

12
13 **Sunday, October 15, 2017**
14

15 On Sunday, October 15, 2017, I returned to 1128 Bennett Lane at 7:30 A.M. CAL FIRE
16 Battalion Chief Vince BERGLAND, CAL FIRE Fire Captain Matt FRANKLIN and M.
17 THOMPSON arrived at 1128 Bennett Lane at approximately 8:00 A.M. to assist with the
18 investigation. BERGLAND and FRANKLIN were briefed on the investigation and then
19 together we walked the property to familiarize them with area.

20
21 At approximately 9:00 A.M., I spoke with Roger LUTZ (R. LUTZ) who works for Deer
22 Park Volunteer Fire Department via cellular phone. On October 18, 2017, I met with R.
23 LUTZ at Bennett Lane and Hwy 128. R. LUTZ told me the following in summary (see
24 attachment G, MARTINEZ):
25

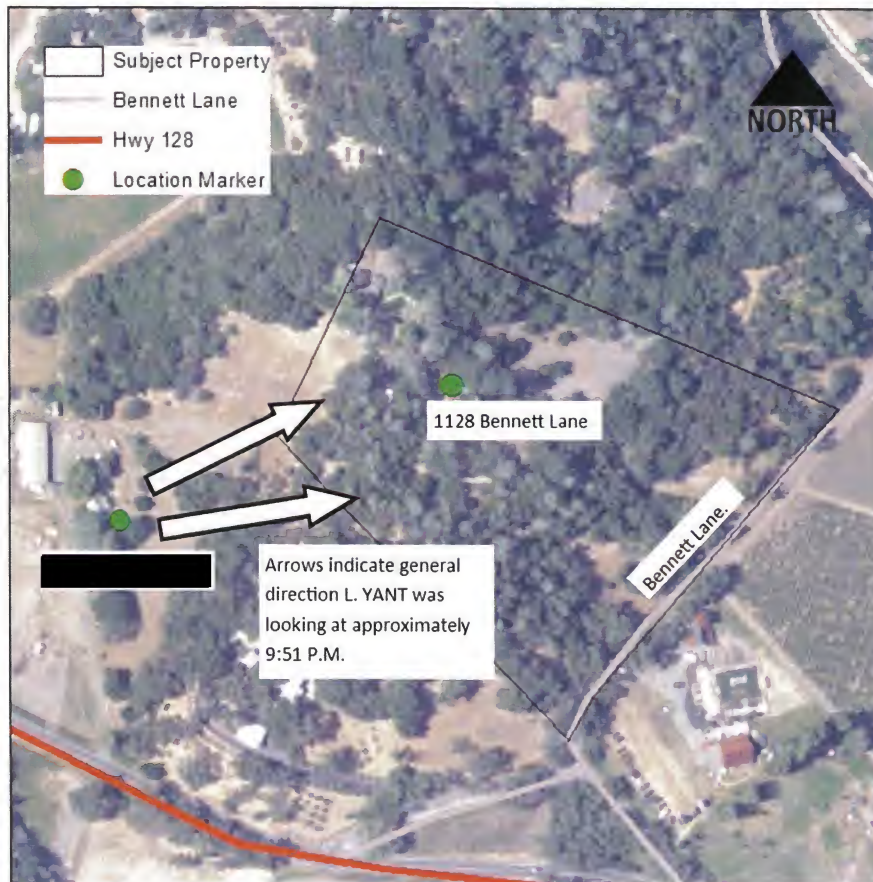
26 R. LUTZ was assigned to E221 on the night of October 8, 2017. R. LUTZ estimated he
27 arrived at scene of the Tubbs Fire on October 8, 2017 between 10:00 and 10:05 P.M.
28 He was advised by the Incident Commander (IC), Greg BERTELLI, to perform structure
29 protection at Bennett Lane. R. LUTZ drove from Hwy 128 northeast on Bennett Lane
30 towards 1200 Bennett Lane. The fire was backing south above Bennett Lane towards
31 1200 Bennett Lane, and was approximately halfway between 1128 and 1200 Bennett

1 Lane properties. R. LUTZ walked up the driveway of 1200 Bennett Lane and observed
2 a "straight line" of fire above and around the geographic "bowl" surrounding the
3 residence, which was unburned. R. LUTZ described the fire as being above (south) the
4 structure and slowly backing towards it.

5
6 At 10:40 A.M., LOHSE and I drove to Healdsburg, CA to take a helicopter flight to
7 observe the scene from above. We arrived at Healdsburg Municipal Airport and met
8 with pilot Ryan COREY, who flew us through the Tubbs Fire to the vicinity of Hwy 128
9 and Bennett Lane. From the air, I observed what appeared to be a large "V" pattern
10 indicator in the vegetation downhill and south of the 1128 residence (see photographs
11 P-JM-cellular-13 thru 16). LOHSE took photographs during the flight (see attachment
12 D, LOHSE photographs P-SL-051 thru P-SL-294). We completed the flight at
13 approximately 1:00 P.M.

14
15 At approximately 12:00 P.M., while on Bennett Lane, BERGLAND contacted James
16 Harrison YANT (J. YANT) who lives at [REDACTED] BERGLAND followed J. YANT to
17 his residence and spoke with him about the night of the fire. The following is a
18 summary of the conversation (See attachment G, BERGLAND):

19
20 J. YANT was in Sacramento when the fire started. His wife, Lucinda YANT (L. YANT),
21 was home alone on October 8, 2017. Their son, James Carson YANT (JC. YANT) who
22 lives on Mt. St. Helena, heard on a scanner of a fire located at Tubbs Rd and Hwy 128.
23 JC. YANT sent a text to L. YANT, notifying her of the fire. L. YANT got out of bed and
24 walked out the back porch, facing northeast, and noticed fire burning in a south
25 direction. She took three photographs with her cellular phone at approximately 9:51
26 P.M. (see photographs P-JM-cellular-01 thru P-JM-cellular-03), which she provided to
27 investigators. When she returned into the house she saw through a large window, fire
28 on the other side of the gravel road to the southwest also burning in a south direction.



1
2 North of the YANT residence, BERGLAND observed a power pole and transformer with
3 damage. He secured the area with barrier tape and stood by. The pole was
4 immediately behind the residence of [REDACTED]. BERGLAND then accompanied M.
5 THOMPSON to meet with witness Cigi RICH who lives [REDACTED], who had
6 taken photographs of the Tubbs Fire at approximately 9:46 P.M. from her deck (see
7 attachment D, RICH photographs P-CG-001 & 002). The photographs ruled out the
8 power pole BERGLAND had observed at [REDACTED] Hwy 128, as an ignition source due to no
9 fire observed near the area of the power pole.

10
11 **Monday, October 16, 2017**

12
13 On Monday, October 16, 2017, I returned to 1128 Bennett Lane at 8:00 A.M. LOHSE,
14 FRANKLIN, and BERGLAND began observing and placing fire pattern indicator colored
15 pin flags on the slopes below the 1128 residence and facilities. I walked between the

1 Investigators and assisted. M. THOMPSON arrived a short time later and assisted the
2 investigation team. Colored pin flags were placed at the observed fire pattern
3 indicators, including red for advancing fire, blue for backing and yellow for lateral
4 spread.

5
6 I walked between the 1128 Bennett Lane driveway and the hillside, in a serpentine
7 pattern above the 1110 Bennett Lane residence between LOHSE and BERGLAND.
8 While walking the area I observed fire pattern indicators such as angle of char, wind
9 driven foliage freeze (see attachment D, ROATH, photographs: IMG-0099 thru IMG-
10 0101), staining (see attachment D, ROATH, photographs: IMG-0053 thru IMG-0060)
11 and white ash deposits. These macro scale indicators showed fire progressing
12 southwest and downhill towards YANT and THOMPSON properties. Observations
13 made on October 13, 2017 showed an advancing fire vector progressing southwest
14 from the developed area of 1128 Bennett Lane. Fire pattern indicators including needle
15 freeze and angle of char were observed (see attachment D, MARTINEZ photographs:
16 P-JM-122 JM thru P-JM-127). Based on fire pattern indicators, it shows the that once
17 the fire advanced to the top of the bowl above the YANT residence, it backed northerly
18 towards the PERLISS and OKELLY residence, and spread laterally northwesterly
19 towards the JACKSON property and Hwy 128.

20
21 I walked in a serpentine pattern between the THOMPSON property east to the 1128
22 Bennett Lane property on the lower slopes above Bennett Lane. I observed fire
23 patterns indicators such as cupping (see attachment D, ROATH, photograph: IMG-0061
24 thru IMG-0063) and staining on rocks (see attachment D, ROATH, photographs: IMG-
25 0064 thru IMG-0069), curling and angle of char (see attachment D, ROATH,
26 photographs: IMG-0046 thru IMG-0048), indicating the fire progressed laterally to the
27 southeast until it came into alignment with the wind where the fire began backing
28 towards the northeast into the wind. A photograph taken by HOSKINS at Hwy 128 and
29 Bennett Lane, illustrates this fire progression, showing the fire transition from a lateral
30 vector to a backing (see attachment D, LOHSE, photograph: P-SL-295) Backing
31 indicators continue to be observed on the west slopes above Bennett Lane, consistent

1 with observations made by myself and FRITS on October 9 and 10, 2017.

2
3 I returned to the top of the hill at 1128 Bennett Lane, then walked in a serpentine
4 pattern, the area between the developed structures at 1128 Bennett Lane, and the
5 PERLISS and OKELLY properties. As noted earlier, when the fire reached the top of
6 the bowl above the YANT residence, it backed northerly towards the PERLISS and
7 OKELLY residence at [REDACTED]. Fire pattern indicators such as staining,
8 cupping and ash deposits on the leeward side were observed on the hillside leading
9 towards the PERLISS and OKELLY residences (see attachment D, MARTINEZ
10 photographs: P-JM-MF-55 and JM-MF-56 and ROATH photographs: IMG-0082 thru
11 IMG-0084). I believe once the fire reached the northeast side of [REDACTED] Bennett Lane, it
12 came into alignment with the wind, and spread to the southwest, making some
13 advancing runs on the hillside southwest of 1177 Bennett Lane (see attachment D,
14 LOHSE photograph: P-SL-21 thru P-SL-24). Fire pattern indicators such as staining
15 (see attachment D, ROATH, photographs: IMG-0091 and IMG-0092) and cupping were
16 observed immediately to the north of the residence. There were both lateral and
17 backing fire vectors in alignment with the residence. I believe this indicates the fire
18 backed behind (north) the 1128 Bennett Lane residence and towards the pool house
19 structure, where a backing vector continued downhill towards the 1200 Bennett Lane
20 residence as described above. I walked counter clockwise, from the slopes below the
21 pool house area on the developed area until I came back to the northside of the
22 residence. As I walked I examined the investigation team findings, and determined the
23 GOA was likely to include the primary residence at 1128 Bennett Lane and the area
24 adjacent to it.

25
26 At approximately 2:00 P.M., ANDREWS was asked to come to the 1128 Bennett Lane
27 property and was interviewed again by LOHSE. ANDREWS walked with myself and
28 LOHSE through the property and based on his descriptions, LOHSE prepared sketches
29 of the structures on the property (see attachment E). The following is a summary of the
30 interview (see attachment G, LOHSE):

1 During the interview, ANDREWS was asked about a large hole near the northeast
2 corner of the primary residence. ANDREWS stated it was the location of a telephone
3 pole, present before the fire (referred to as private pole 3 in this report). When asked
4 about its condition, ANDREWS stated it was "just about to be replaced because it had
5 been wood-peckered so damn bad, but it was here and it was holding". The pole was
6 supposed to be replaced in the spring. ANDREWS did not know when the pole was
7 installed, and said it was there when the property was purchased in 1973. When asked
8 why it was being replaced he said, "well, because we were afraid of it falling over".
9 ANDREWS stated everything on the property was electrically powered, and there was
10 no gas on the property. Every electrical box on the house was in use and the power
11 was always on. Trees on the property were pruned approximately two and a half year
12 ago. When asked if there were any problems with trees knocking down electrical lines,
13 ANDREWS said they've never taken out lines but did make them sag.

14
15 I obtained a digital record showing CAL FIRE performed a defensible space inspection
16 approximately on July 25, 2015, which identified (2) violations including; A. Remove all
17 branches within 10 feet of any stovepipe or chimney outlet, and H., Live flammable
18 ground cover less than 18 inches in height may remain, but overhanging and adjacent
19 trees must be pruned to a height of 6 to 15 feet. A planned re-inspection date of
20 September 10, 2015 was identified in the digital record, however it is unclear if it
21 occurred and if so, the results were not included (see attachment K). I requested
22 additional defensible space inspection records from LNU CAL FIRE Battalion Chief Joe
23 BALDWIN and CAL FIRE Deputy Chief Steven HAWKS. No additional records were
24 found.

25
26 ANDREWS provided a series of photographs of the property from 2013, 2016 and the
27 morning of October 9, 2017 prior to arrival of FRITS (see attachment D, LOHSE
28 photographs P-SL-307 thru P-SL-331).

29
30 FRANKLIN interviewed Nicholas LUTZ (N. LUTZ), with Deer Park Volunteer Fire
31 Department. The following is a summary of the interview (see attachment G,
LE80 (Rev. 7/2011)

1 FRANKLIN):

2
3 N. LUTZ responded to the Tubbs Fire on Engine 21 at approximately 11:15 P.M.,
4 arriving at Bennett Lane and Hwy 128 at approximately 11:30 P.M. The fire was
5 backing to the north along Bennett Lane. The fire had not yet reached 1200 Bennett
6 Lane. At 12:00 A.M. fire was surrounding the house at 1200 Bennett Lane and began
7 "sweeping" to the north toward the driveway.
8

9 **Tuesday, October 17, 2017**
10

11 On Tuesday October 17, 2017 at approximately 8:00 A.M. I arrived 1128 Bennett Lane
12 with LOHSE, FRANKLIN, ROATH and BERGLAND. Investigators continued making
13 burn pattern indicator observations and placing colored pin flags. I walked clockwise
14 and counter clockwise around the residence to confirm fire pattern indicators. I
15 examined the advancing fire vector southeast of the residence and observed fire pattern
16 indicators including angle of char and staining. These observations indicated an initial
17 advancing run in line with the primary residence at 1128 Bennett Lane (see attachment
18 D, ROATH, photographs: IMG_0070 thru IMG_0081). I continued walking clockwise
19 around the residence. I confirmed the advancing vector transition to a lateral vector on
20 the west side of the residence. As I continued towards the north and east side of the
21 residence, I observed fire pattern indicators such as cupping, staining and angle of char
22 (see attachment D, ROATH, photographs: IMG-0105 thru IMG-0107). These fire
23 patterns indicate fire backing to the northwest, towards 1200 Bennett Lane. In the
24 context of fire behavior, transitions lines, and witness statements, I determined the GOA
25 to include the general area of the primary structure at 1128 Bennett Lane and the
26 immediate area surrounding it, including the area to the northeast, between PG&E pole
27 3 and the residence (see attachment E, Fire Vector Map). The GOA was approximately
28 200-feet east to west by 100-feet north to south (see attachment E, General Origin Area
29 & Specific Origin Area Map).
30

31 The GOA is described as a mostly grassy, with some associated brush, sloping slightly

1 uphill as it approaches the southern corner of the residence. Within the GOA, I
2 observed the remains of what appeared to be a PG&E service drop for the residence
3 coming from PG&E pole 3, and a section of what appeared to be privately owned
4 conductor also associated with the residence. The privately-owned conductor extended
5 downhill to private pole 1 and westerly towards the pool area. The severed ends of
6 conductor were found on opposing sides of where private pole 3 was before consumed
7 by fire, as described by ANDREWS. Also observed were numerous puddles of melted
8 metal, including what appeared to include both aluminum and copper. This was later
9 confirmed by NOLT who commented the temperatures from the fire were high enough
10 to melt both aluminum and copper (see attachment Q, photograph: 14).

11
12 Working inward from the GOA, BERGLAND placed fire pattern indicator flags on the
13 north and east sides of the 1128 Bennett Lane residence (see attachment D,
14 MARTINEZ photographs: P-JM-149 thru P-JM-152). BERGLAND observed both micro
15 and macro fire pattern indicators including, but not limited to charring on small woody
16 materials, rock sooting and staining, and protection (see attachment D, MARTINEZ
17 photograph: P-JM-229). BERGLAND observed advancing fire southwest toward the
18 structure, lateral spread to the east and southeast as well as northwest. Backing fire
19 was observed to the northeast. As BERGLAND worked inward, he began observing
20 what appeared to be numerous small pieces of conductor scattered in an area
21 approximately 20-feet by 30-feet (see attachment D, MARTINEZ photographs: P-JM-
22 198 thru P-JM-200). This area was considered a possible Specific Origin Area (SOA)
23 because of the presence of downed conductor and fire pattern indicators showing fire
24 advancing towards the primary structure. Outside of identifying items of interest such
25 as the observed pieces of conductor, care was taken to avoid disturbing the possible
26 SOA so it could be gridded out at a later time. Items of interest were identified with
27 white and hi-vis green pin flags.

28
29 I observed a high degree of damage to both the PG&E and privately owned conductors,
30 specifically on sections which would have been suspended over and immediately
31 adjacent to the residence and private pole 3 (see attachment D, MARTINEZ



1 photographs: P-JM-201, 202, 348, and 360, evidence items E-2 and E-32, and report
2 authored by BELLINO). The condition of the conductor as found in the possible SOA
3 exhibited (2) extreme conditions including severely damaged by fire, and relatively
4 undamaged. The section of conductor relatively undamaged by fire, but within the burn
5 area, seemed reasonable considering the light ground fuels (see attachment D,
6 MARTINEZ photograph: P-JM-195). The heavily damaged conductor, lying within the
7 same fuel type seemed out of place because of the light ground fuels. I considered the
8 possibility the insulation covered conductor was ignited while suspended, later melted
9 and fell to the area between the residence and PG&E pole 3 (see attachment D,
10 ROATH, photographs: IMG_124 thru IMG_128). This would result in the light fuels
11 becoming ignited with the successive fire progression occurring as observed. This
12 scenario provides taking into consideration the origin being associated with the structure
13 itself or immediately adjacent to it, causing the structure to become ignited causing
14 subsequent heat and fire damage to the conductor while it was still suspended. I
15 identified the grassy area containing the damaged conductor and the structure as the
16 SOA (see attachment E, General Origin Area & Specific Origin Area Map).

17
18 Investigators and I searched through debris in the northeast corner of the burned
19 structure to find remnants of the weather head and conductor (see attachment D,
20 MARTINEZ photographs: P-JM-158 thru P-JM-172). The weather head and associated
21 conductor was found and later collected (see attachment D, MARTINEZ photographs:
22 P-JM-306 and 342, and attachment Q, photograph: 14). Also, observed in the debris
23 was a section of wood with a rounded edge appearing to be the remnant of a power
24 pole. This item was later collected as evidence (see attachment D, MARTINEZ
25 photographs: P-JM-307, evidence item E-11).

26
27 At approximately 9:30 A.M. LOHSE met with Anne MISSEN at her residence located at
28 [REDACTED]. The following is a summary of their conversation (see attachment
29 G, LOHSE):

30
31 MISSEN was home the night of October 8, 2017. Looking west of from her property,
LE80 (Rev. 7/2011)

1 she could see the hill side in front of [REDACTED] (home of RISI). At
2 approximately 10:00 P.M. MISSEN observed a red glow. She then observed a fire
3 slowly progress from left (south) to right (north) throughout the night and the next day.
4 The fire was fighting against the wind to move towards her residence.

5
6 At 10:00 A.M., ROATH met with witness Mark OLACHEA, who lives at [REDACTED]
7 South, in Calistoga, CA. On Sunday, October 8, 2017, OLACHEA was at home and
8 observed the glow of the fire at approximately 10:00 P.M., He exited his residence and
9 parked his vehicle at a dirt turnout on Bennett Lane near Tubbs Lane. At approximately
10 1:00 A.M., OLOCHEA took photographs which he provided to ROATH. ROATH
11 provided OLOCHEA a LE 78 witness statement which he completed (see attachment G,
12 ROATH, and attachment H).

13
14 At approximately 12:30 P.M., I took photographs of the GOA and SOA, and the exterior
15 and interior of the northeast corner of 1128 Bennett Lane property (see attachment D,
16 MARTINEZ photographs (P- JM-140 thru P-JM-172).

17
18 At 2:55 P.M. I was forwarded an email prepared by Fire Investigator Ken MILLER (see
19 attachment J, MILLER). The email was originally provided to NOLT and described
20 dropped circuit breakers observed by MILLER on Bennett Lane the morning of the
21 October 10, 2017 (see attachment D, Witness MILLER photographs: DSC_0094 thru
22 DSC_0097). Using the photographs, I was able to determine the pole and the circuit
23 breakers were no longer in the open position and appeared to have been reset (see
24 attachment D, MARTINEZ photograph: P-JM-359). This pole is identified in this
25 investigation as PG&E pole 2, and referenced as the pole with "fuse 773".

26
27 At approximately 4:00 P.M., LOHSE met with Calistoga Fire Department Engineer Rob
28 EBLING. The following is a summary of their conversation (see attachment G, LOHSE).

29
30 EBLING was on duty and assigned on Engine 19 the night of October 8, 2017. EBLING
31 responded to the initial dispatch arriving just behind Engine 419. EBLING drove down

1 Bennett Lane to protect structures. The fire was just northeast of the address to 1128
2 Bennett Lane. The fire was backing into the wind to the northeast. EBLING estimated
3 the furthest east the fire had moved was between the first and second power pole east
4 of the driveway to 1128 Bennett Lane (the first and second power poles east of the
5 driveway to 1128 Bennett Lane are PG&E poles 1 and 2). The fire was at an angle
6 indicating the fire was further northeast up the hill than it was along Bennett Lane. He
7 did not see any fire northeast of the area he had stopped.

8
9 **Wednesday, October 18, 2017**

10
11 On Wednesday, October 18, 2017 at approximately 8:00 A.M., I arrived at 1128 Bennett
12 Lane with LOHSE, FRANKLIN, ROATH, and BERGLAND. ROATH and I were
13 checking the surrounding area looking for additional witnesses. At approximately 8:15
14 A.M. I entered the Bennett Lane Winery, located at 3340 Hwy 128. While on the
15 property, I observed a security camera facing generally towards Bennett Lane. ROATH
16 contacted workers at the facility and was told he should contact Stephanie LONGTON,
17 who was currently off site. ROATH returned to the winery at approximately 9:00 A.M.
18 and contacted LONGTON who had access to the video footage. ROATH asked to
19 review video footage from the camera between 9:30 P.M. and 10:00 P.M. ROATH
20 observed fire in the upper right hand corner of the video footage at approximately 9:36
21 P.M. ROATH obtained a copy of the video footage which was collected as evidence.

22
23 At 8:27 A.M., LOHSE interviewed Shawn and Linda THOMPSON (S. THOMPSON and
24 L. THOMPSON) via cellular phone. The following is a summary of the interview (see
25 attachment G, LOHSE):

26
27 S. THOMPSON lives at [REDACTED] in Calistoga, CA. S. THOMPSON and L.
28 THOMPSON were having dinner with Jan RISI (J. RISI) and R. RISI at [REDACTED]
29 Lane the night of October 8, 2017. They both left and drove home, south on Bennett
30 Lane at approximately 9:00 P.M. S. THOMPSON was awoken sometime after 9:00 P.M.
31 by his wife, telling him the smoke detectors were going off. As he got out of bed, he

1 saw flames in the backyard coming down the hill at them. He thought fire was close
2 enough to spray it with a garden hose. S. THOMPSON was looking uphill, the wind
3 blowing into his face, and there were embers flying in the wind. The fire was just north
4 of his residence along a fence line containing metal posts and mesh fence. According
5 to L. THOMPSON, the house never lost power while they were there. S. THOMPSON
6 used the electric garage door opener to get their car. L. THOMPSON called 911 at 9:52
7 P.M. S. THOMPSON noticed fire coming down from where the 1128 Bennett Lane
8 residence was. He did not see much fire east of his house, but the fire moved
9 backwards that way, and then much later burned the area east of the 1128 Bennett
10 Lane driveway.

11
12 At approximately 9:15 A.M. I drove into the driveway of [REDACTED] and met with
13 resident Whitney RAMPP. RAMPP told me the following in summary (see attachment
14 G, MARTINEZ):

15
16 On the evening of Sunday, October 8, 2017, RAMPP was at home. Sometime before
17 10:00 P.M. she heard what she thought was a transformer blow. Three to four minutes
18 later she heard a fire engine go by and stop somewhere up by Bennett Lane. RAMPP
19 showed me where the fire was and pointed to the hill I knew to be associated with the
20 1128 Bennett Lane property.

21
22 At 11:43 A.M., LOHSE and I spoke face to face with R. RISI and J. RISI at their
23 residence at [REDACTED]. The following is a summary of their
24 conversation (see attachment G, LOHSE):

25
26 The THOMPSON'S left their residence at approximately 8:45 P.M. The power went out
27 a little after 9:00 P.M. R. RISI went to bed a short time later and at an unknown time,
28 received a phone call from S. THOMPSON (the time stamp from the S. THOMPSON
29 phone was 9:45 P.M.). S. THOMPSON told R. RISI there a was fire on the hillside and
30 to get out. He stepped out of his door and saw a glow to the southwest. There was no
31 fire directly in front of him facing west or to the north and northeast of his location. The

1 glow looked like it was coming from the THOMPSON'S property and somewhere in
2 between the THOMPSON'S and his neighboring property to the south or southwest. R.
3 RISI returned to his property at 12:00 A.M. and observed fire starting to go up the
4 driveway of 1200 Bennett Lane. He estimated the winds at the property prior to the fire
5 to be approximately 70 to 80 miles per hour.
6

7 At 12:45 P.M., I spoke with Peggy OKELLY over the phone and she provided a timeline
8 of the evening of the fire. On October 19, 2017, she emailed me a timeline of the
9 events the night of the fire (see attachment J, OKELLY). The following is a summary of
10 the conversation with her timeline incorporated:
11

12 OKELLY was home at [REDACTED] on the evening of October 8, 2017. At
13 approximately 9:28 P.M., the power went off. Sometime after 9:43 P.M. she looked out
14 her window and saw fire coming towards her house. She said it was backing down from
15 "above." I asked where "above" was and she said it was from where her power comes
16 from. I confirmed with her she was referring to the 1128 Bennett Lane Property. The
17 fire had not wrapped around the west or east side of her residence when she left at
18 approximately 10:15 P.M.



1
2
3 At 2:24 P.M., BERGLAND spoke with Theresa JACKSON who was staying at [REDACTED] Hwy
4 128, in Calistoga, CA. JACKSON told BERGLAND the following in summary (see
5 attachment G, BERGLAND):
6

7 JACKSON explained the winds were really out of control, knocking over table umbrellas
8 and shaking the tiles on the roof. The lights flickered approximately five to ten times
9 between 9:00 P.M. and 9:55 P.M. At 9:55 P.M., she received a phone call from her
10 husband, notifying her there was a fire behind the hill of the house she was in.

11 JACKSON went outside, looked west and didn't see anything. Then, she walked to the
12 south side of the residence and saw the hill on fire above the pig farm at [REDACTED]
13 (YANT residence). JACKSON told BERGLAND, "the fire was spotty and there were
14 long lines of fire between the pig farm and the top of the hill." There was fire on the pig
15 farm side (east side) of the access driveway but no fire on the uphill side (west side).

JACKSON provided photos, taken at 10:06 P.M. from the easement road (see attachment D, JACKSON, photographs: P-TJ-001 and P-TJ-002) that connects to Bennett Lane. JACKSON did not lose power prior to leaving. She did not see fire in the area of the PERLISS house located at [REDACTED] while exiting.

At approximately 5:00 P.M. BERGLAND and ROATH returned to Bennett Lane Winery and began to identify the video camera line of sight. BERGLAND and ROATH estimated where the right extent of the video footage extended to on the ground. The approximate right extent (northernmost) of the camera appeared to be in line with 1133 Bennett Lane.

Thursday, October 19, 2017

On Thursday, October 19, 2017, I returned to 1128 Bennett Lane at approximately 10:00 A.M. with LOHSE, BERGLAND, ROATH, and FRANKLIN. At approximately 10:30 A.M., BERGLAND and ROATH returned to Bennett Lane Winery and continued with identifying line of sight for the fixed camera found on Bennett Lane Winery Property. ROATH and BERGLAND used orange traffic cones to delineate where the northern extent of the screen would be (see Attachment D, BERGLAND photographs: P-VB-001 thru 003). After their assessment, they determined the camera angle did not cover the 1128 Bennett Lane residence, but covered the lower hillside to the south.

At approximately 11:00 A.M., NOLT returned to 1128 Bennett Lane to continue his assessment of the scene. He also utilized the availability of a boom truck to observe the equipment on PG&E pole 3, private pole 1 and PG&E pole 2. NOLT advised me he didn't identify any obvious problems with any equipment. NOLT commented it would nearly be impossible to identify evidence of an electrical caused fire in the structure due to the fire damage and evidence of high heat from the fire.

At approximately 12:00 P.M., I photographed the interior of the residence at 1128 Bennett Lane (see attachment D, MARTINEZ photographs P-JM-173 thru P-JM-190).

ROATH photographed fire pattern indicator flags placed by investigation team members (see attachment D, ROATH photographs 0037 thru 0112) on October 16 and 17, 2017.

I assisted LOHSE preparing a scene diagram (see attachment E).

At approximately 2:00 P.M., LOHSE met with M. HICKMAN and D. HICKMAN. The following is a summary of their conversation, including information gathered during subsequent telephone conversations (see attachment G, LOHSE):

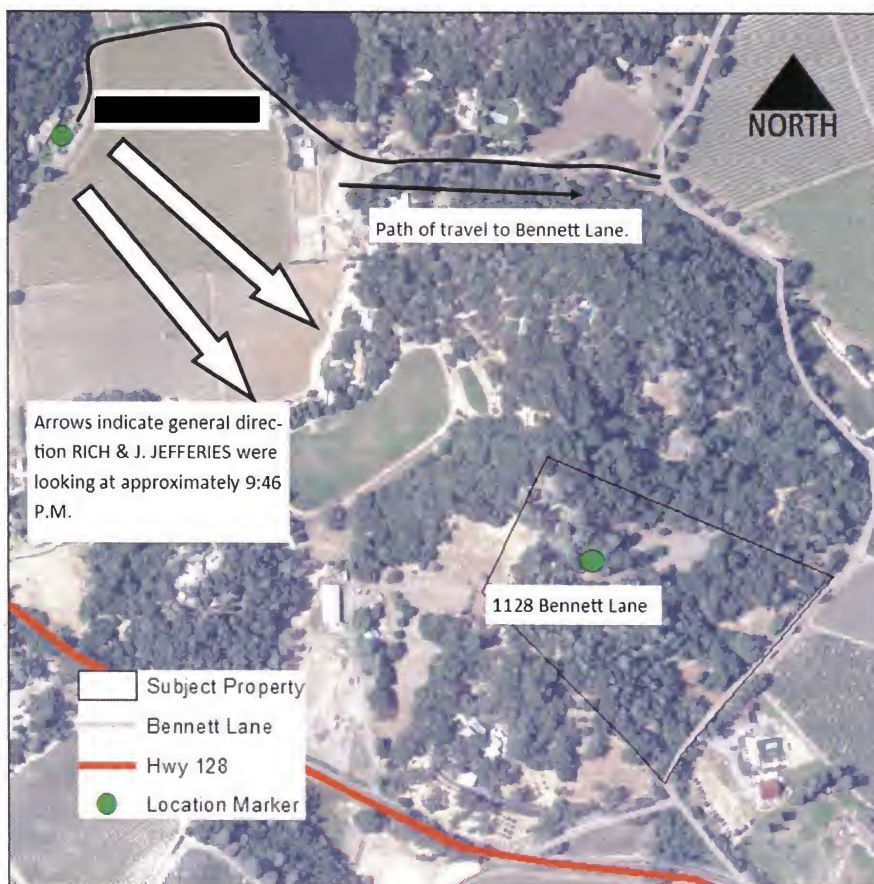
The HICKMANS were home the night of the fire. A tree had fallen earlier in the evening, blocking their driveway. D. HICKMAN walked down to check if the road was clear and texted M. HICKMAN the road was clear at 9:38 P.M. After she received the text, her daughter Victoria knocked on the kitchen door and told her, "Mom, there is a big orange glow". M. HICKMAN looked out a window which faces north, and said it looked like the wall of trees were on fire. She called 911 at 9:41 P.M. Victoria later told M. HICKMAN she was looking out the window and saw a flash of light, then saw an orange glow, then went and told her mother. M. HICKMAN said the lights dimmed prior to her daughter notifying her. D. HICKMAN said he heard a pop or explosion and was aware of a light above him to the north. He estimated the light occurred between 9:27 and 9:28 P.M. He didn't look north to see what it was. LOHSE obtained a series of photographs taken by M. HICKMAN after she evacuated (see attachment D, LOHSE photographs P-SL-296 thru P-SL-306).

At 3:05 P.M., BERGLAND contacted witness Cigi RICH, who lives at [REDACTED] Lane. The following is a summary of their conversation (see attachment G, BERGLAND):

RICH was home on the evening of Sunday, October 8, 2017, along with fiancé Jordan JEFFERIES (J. JEFFERIES) and his father Eric JEFFERIES (E. JEFFERIES). The power went out at approximately 9:00 P.M. At approximately 9:45 P.M. RICH and J.

JEFFERIES went outside and observed the fire on the hill across the valley from them. RICH took two photos from her cell phone while J. JEFFERIES called 911. The photos were time stamped 9:46 P.M. and 9:49 P.M. (see attachment D, RICH photographs: P-CR-001 and P-CR-002). When they left the area on an easement road connecting to Bennett Lane, RICH didn't observe any fire on the left or right side of them. BERGLAND took a series of "day" photographs to compare to the RICH photographs (see Attachment D, BERGLAND photographs: P-VB-004 thru P-VB-0017).

The 1128 Bennett Lane property is approximately .7 miles southeast of the RICH property. The first visible hills to the southeast of the RICH property include the area of 1128 Bennett Lane.



Approximately 4:30 P.M., LOHSE and I placed alphabetized placards at items of

1 interest the investigation team had identified. Placards labeled "A" through "Y" were
2 placed next to items of interest and were then photographed (see attachment D,
3 MARTINEZ photographs: P- JM-195 thru P- JM-243). The alphabetized placards would
4 later be replaced as we decided to use numerical identifiers for items collected as
5 evidence.

6
7 At approximately 5:50 P.M. BERGLAND contacted Charles DARRALL (C. DARRALL)
8 and Shannon DARRALL (S. DARRALL) at [REDACTED]. The following is a summary
9 of their conversation (see attachment G, BERGLAND):

10
11 The DARRALLS were home on Sunday, October 8, 2017. At approximately 10:15 P.M.,
12 they saw a flash through their window and heard two loud booms. Both agreed the
13 sound came from the Bennett Lane direction. From an upstairs location of their house,
14 they could see a glow through the window.

15
16 **Friday, October 20, 2017**

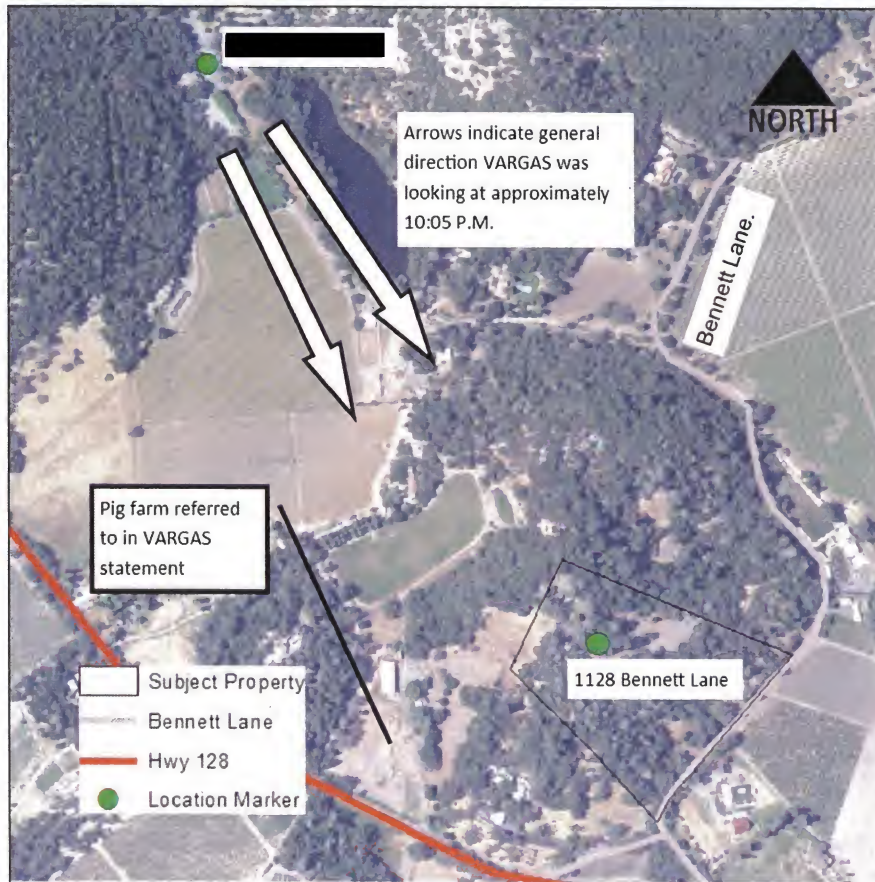
17
18 On October 20, 2017, I returned to 1128 Bennett Lane at approximately 10:00 A.M. with
19 LOHSE, BERGLAND, ROATH, AND FRANKLIN.

20
21 LOHSE and I placed evidence placards in the area of the 1128 Bennett Lane structure.
22 At approximately 12:00 P.M. I met with KAROLY and the CAL FIRE LIDAR team. I
23 briefed KAROLY on what I wanted documented, then left the area so they could work
24 undisturbed. It was estimated it would take the rest of the day and the following day to
25 complete the assignment of scanning the developed property at 1128 Bennett Lane.

26
27 At approximately 12:00 P.M., BERGLAND contacted Luis VARGAS at [REDACTED]
28 Lane. The following is a summary of the conversation (see attachment G,
29 BERGLAND):

30
31 VARGAS told BERGLAND power at his residence turned off a little before 9:00 P.M. At
LE80 (Rev. 7/2011)

1 approximately 10:05 P.M., he went outside and noticed a fire on the hill above the pig
2 farm (YANT residence). He departed his residence at approximately 12:00 A.M. and
3 saw the fire on the hill to his right while exiting on the road that ties into Bennett Lane.
4 He did not notice fire on his left side (north) while exiting. The hillside above the YANT
5 residence at [REDACTED] includes both the 1110 and 1128 Bennett Lane properties.



6
7
8 At approximately 1:00 P.M., BERGLAND contacted Larry ANDERSON at [REDACTED]
9 Lane. The following is a summary of the conversation (see attachment G,
10 BERGLAND):

11
12 On the night of October 8, 2017 ANDERSON was at home at [REDACTED]. At
13 approximately 10:05 P.M. E. JEFFERIES was at the door and told him there was fire on
14 the hill behind his house. He evacuated his house and drove the easement road to
15 Bennett Lane and turned right, driving past 1177 Bennett Lane. He stopped at a gravel

1 road with a metal gate and observed a fire ahead of him. He describes the fire as, "a
2 line of fire from the road edge toward the top of the hill". He returned home where he
3 took some photographs (see attachment D, ANDERSON photographs: P-LA-001 thru
4 P-LA-005). Later, after he left his house, he took additional photographs and a video
5 (see attachment D, ANDERSON photographs: P-LA-006 thru P-LA-020).

6
7 At approximately 4:20 P.M., BERGLAND contacted Anthony PERLISS at [REDACTED]
8 Lane. The following is a summary of the conversation (see attachment G,
9 BERGLAND):

10
11 Between 9:00 P.M. and 10:00 P.M., on October 8, 2017, PERLISS was at home and
12 noticed the lights flicker 2 to 3 times. At approximately 10:10 P.M. PERLISS went
13 outside and while in the driveway looking south, he observed a glow toward the pergola,
14 south of the main residence. He walked to the south to inspect the glow. Halfway to
15 the pergola, he noticed the fire. He described the fire to be like lava, low to the ground,
16 with little to no flames. He did not smell any smoke. He went down to the pergola and
17 the fire had not gone past it towards the main house. PERLISS said everything he
18 could see towards Hwy 128 appeared to have burned. He texted his girlfriend at 10:37
19 P.M. and told her the situation. He and his girlfriend exited through an easement road
20 towards Hwy 128 and there was fire on both sides of the easement road.

21
22 At approximately 4:45 P.M., I walked to 1200 Bennett Lane and photographed the
23 residence and associated property. While inspecting the service drop from the 1128
24 Bennett Lane property to the 1200 Bennett Lane property, a conductor was observed
25 running through a tree uphill from the residence. While on the property I observed and
26 photographed remnants of Romex and extension cords running uphill on a dirt trail from
27 the 1200 Bennett Lane residence to a wooden viewing platform, destroyed during the
28 fire (see attachment D, MARTINEZ photographs P-JM-279 thru P-JM-288). It was later
29 determined after talking to OKELLY and BROWN JR., the viewing platform did not have
30 electrical power running to it for a number of years. Additionally, I did not observe any
31 evidence of the romex or extension cord connecting to any power source on the

1 residence. I excluded it as a possible ignition source.

2
3 **Saturday, October 21, 2017**

4
5 On Saturday, October 21, 2017, Investigators stayed off site to avoid disturbing the
6 LIDAR team.

7
8 At 11:20 A.M. LOHSE spoke with the owner of [REDACTED], Charlie BROWN JR.
9 via cellular phone. The following is a summary of their conversation (see attachment G,
10 LOHSE):

11
12 BROWN JR. was asked about Romex and electrical wiring leading from the southeast
13 corner of the main structure and going uphill to a small structure. He stated a contractor
14 built a viewing platform and installed the wiring to be used for it. It has not been used for
15 years.

16
17 I was informed by KAROLY at approximately 7:00 P.M. the LIDAR team had completed
18 their assignment, and would not be on site the following day.

19
20 **Sunday, October 22, 2017**

21
22 On Sunday October 22, 2017, at approximately 8:30 A.M., I traveled to 69 Lerner Drive,
23 in Calistoga to follow up on a report of a wildland fire, described in a Calistoga Police
24 Department report provided to CAL FIRE (see attachment I). HOSKINS responded to
25 [REDACTED] Drive On October 8, 2017 prior to the Tubbs Fire dispatch, and upon arrival
26 found the fire already out. [REDACTED] Drive is approximately 5 miles southeast of the
27 SOA. I arrived at [REDACTED] and met with Katie SERENI who told me the following:

28
29 While at home on Sunday, October 8, 2017, she observed what looked like fire on one
30 of the overhead power lines. She then saw a branch on fire approximately 30 to 40-feet
31 away on the ground. The branch self-extinguished and was put into the bucket of a

1 backhoe and left there. There was no additional fire in the area. She was unsure what
2 time the event occurred, but thought it was around 10:15 P.M. I photographed the
3 remains of a charred tree limb found on the ground and in the bucket, as well as the
4 span overhead. There was no visible damage to the overhead conductor. (see
5 attachment D, MARTINEZ photographs P-JM-289 thru P-JM-293).

6
7 After meeting with SERENI, I drove to 1128 Bennett Lane arriving at approximately
8 10:00 A.M., where I met with Robert TRUMBALL and Daniel DAVIS of PG&E. The
9 purpose of our meeting was to collect Smart Meters as evidence from properties
10 surrounding the 1128 Bennett Lane property. TRUMBALL and DAVIS assisted me with
11 the collection of Smart Meter's from 1200 Bennett Lane (evidence item 20), 1177
12 Bennett Lane (evidence item 21) and 1110 Bennett Lane (evidence item 22)
13 (photographs P-JM-294 thru P-JM-299).

14
15 I was advised by ZIMMERMAKER, that two additional CAL FIRE Investigators would be
16 performing a peer review of the origin and cause investigation. This was done to test
17 the determination made by the investigation team. Physical identifiers such as colored
18 flags and evidentiary placards would have to be removed as to not influence the
19 investigators in their review.

20
21 At approximately 1:00 P.M., LOHSE and I determined items to be collected as evidence
22 and placed numbered placards 1 through 12 next to the identified items. Items were
23 then photographed so they could be identified later when collected, following the second
24 opinion field review.

25
26 **Monday, October 23, 2017**

27
28 On October 23, 2017, at approximately 10:00 A.M. I met with CAL FIRE Deputy Chief
29 Jeremy MONROE and Fire Captain Darren STEWART at 1128 Bennett Lane in
30 Calistoga. Prior to their arrival, myself and LOHSE, BERGLAND, and ROATH pulled all
31 fire pattern indicator pin flags and placards from the subject property. White pin flags

1 were maintained within the SOA to assist investigators to identify the location of
2 evidence. Prior to MONROE and STEWART beginning their investigation, the
3 investigation team provided a briefing which included witness statements and
4 photographs. The team also oriented MONROE and STEWART to the surrounding
5 properties. No information was provided regarding evidence, any working hypothesis,
6 or any formulated opinions. Once the briefing was complete, MONROE and STEWART
7 were left to begin their investigation.

8
9 At approximately 11:00 A.M., I met with representatives from the State of California
10 Public Utilities Commission (CPUC) including Deputy Director Lee PALMER, Deputy
11 Executive Director Maryam EBKA, Utilities Engineer Raymond CHO, and Utilities
12 Engineer Wilson TSAI. I briefed CPUC representatives on the electrical systems I had
13 identified on the property and informed them of what PG&E equipment I had collected
14 and what I intended to collect. CPUC members inspected the area and took some
15 photographs of the electrical systems. I confirmed with CPUC members the
16 responsibility of PG&E versus the landowner with regards to the service drop. It was
17 my understanding through the course of the meeting that PG&E has responsibility from
18 the service drop to the weather head. I was told Raymond CHO would be my contact
19 regarding this case. CPUC staff left the scene at approximately 12:20 P.M.

20
21 **Tuesday, October 24, 2017**
22

23 On TUESDAY, October 24, 2017 at approximately 12:30 P.M., STEWART and
24 MONROE arrived on scene and continued their peer review examination of the initial
25 GOA determination. At approximately 6:45 P.M. they completed their examination of
26 the scene and returned to their hotel. I was contacted by STEWART and MONROE by
27 telephone, and advised they had determined the area exterior and to the rear of the
28 residence to be the GOA. Once they were satisfied with a GOA, they did not continue
29 further to determine an SOA, to avoid any disturbance to the scene. They advised me
30 they would be preparing and submitting a supplemental report of their findings.



Wednesday, October 25, 2017

On Wednesday, October 25, 2017 I arrived on scene at approximately 8:30 A.M. and briefed the team on collecting evidence. LOHSE, ROATH, CAL FIRE Captain Brandon BERTOLINO, and CAL FIRE Captain Kyle STEIS assisted.

At approximately 9:00 A.M. LOHSE and I began photographing and collecting items of evidence beginning with evidence item 19 and working backwards until evidence item E-2 was collected (see attachment D, MARTINEZ photographs P-JM-314 thru P-JM-349). A non-sequential order of collection was done to allow Investigator's to perform a grid search within the SOA.

ROATH, BERTOLINO, and STEIS performed a grid search, photographed and collected a series of wire fragments in the SOA adjacent to the house (Evidence Item E-1 with categorized subsets based on the grid section (see attachment D and O)

At approximately 12:00 P.M., LOHSE and I continued collecting and photographing evidence items 23 through 26 (see attachment D, MARTINEZ photographs: P-JM-350 thru P-JM-357). Evidence items E-20 through E-22 were collected on October 22, 2017).

At approximately 1:00 P.M., I met with CAL FIRE Forester II Charlie MARTIN at the origin site. MARTIN was requested to evaluate the general condition of the trees on the property, specifically those adjacent to the 1128 Bennett Lane residence.

The CPUC and PG&E were expected to arrive on scene at approximately 1:00 P.M. to observe and assist with the collection of evidence identified as PG&E property.

Representatives of the CPUC arrived on scene at approximately 1:00 P.M. and PG&E arrived shortly after. I met with PG&E representative Maria DELUCA and I advised her what items I would be collecting. I observed while PG&E staff removed the identified

property and turned it over to me (see attachment D, MARTINEZ photographs: P-JM-LE80 (Rev. 7/2011)

358 thru P-JM-361). In all, we collected in total (7) fuse assemblies from PG&E poles 1 thru 3, and (1) PG&E line drop from PG&E pole 3 to the 1128 Bennett Lane residence (evidence items E-27 through E-34).

All evidence collection was completed at approximately 4:00 P.M. and was handed over to STEIS, who took custody of, and transported it to the Sonoma Lake Napa Unit (LNU) Headquarters at 2210 West College Ave in Santa Rosa, CA, where it was placed in the evidence locker.

In January 2018, I received a report from MARTIN on his evaluation of trees surrounding the burned structure at 1128 Bennett Lane, and the overall stand of trees in, and around, the developed portion of the property. MARTIN provided photographs with graphics as well as a diagram (see attachment M). The following is a summary of his findings:

The primary species in and surrounding the developed property of 1128 Bennett Lane include coast live oak, Douglas-fir, coast redwood, foothill pine, along with various shrub species. MARTIN did not observe significant defects on the main trunks or branches of trees surrounding the developed portion of the property. Trees near the structure showed signs of pruning on the lower branches. Trees #1 and #2, which are located immediately adjacent to the structure on the northeast side had signs of heart rot in the main trunk and lateral branches, and showed signs of poor pruning cuts. Tree #1 showed hollow and burned out broken branches and burned out pruning wounds. Other than heart rot in both trees, there were no signs of insect or pathogen pests that would significantly impact individual trees on the property. Based on the number of cavities observed on trees #1 and #2, MARTIN concluded there was a significant amount of heart rot in the main scaffold branches and lateral branches. By decaying the central wood of a trunk or branch, heart rot fungi can significantly weaken the structure of a tree.

I did not observe any charred remains of branches observed within the SOA.

1
2 On Thursday, January 25, 2018 at approximately 1:00 P.M., I received a supplemental
3 investigation report prepared by STEWART and MONROE. In summary, STEWART
4 and MONROE determined the area exterior to the rear of the residence to be the GOA.
5 They were unable to determine an SOA due to lack of micro scale indicators available
6 to examine (see attachment N).
7

8 On January 26, 2018 at approximately 3:00 P.M., I spoke with trial lawyer James
9 FRANTZ with Frantz Law Group, out of Santa Rosa, CA. FRANTZ told me he was in
10 possession of information regarding the location and cause of the Tubbs Fire and he
11 was willing to share the information with me. The information would be available the
12 following day in Santa Rosa. I arranged for BERTOLINO to meet with FRANTZ and
13 receive the information.
14

15 On Saturday, January 27, 2018 BERTOLINO, met with FRANTZ at the Hyatt Regency
16 Hotel in Santa Rosa and was provided a thumb drive containing a Power Point
17 presentation (see attachment J, FRANTZ). BERTOLINO mailed me the thumb drive
18 with the presentation. In summary, the material provided suggests the Tubbs Fire
19 originated near 1318 Bennett Lane, a location approximately 2200-feet northeast of the
20 SOA. The determination of the GOA and overall fire progression, including witness
21 statements, indicate this location was not consumed by fire until well after the fire was
22 reported and established. The 1318 Bennett Lane location was eliminated as a fire
23 origin.
24

25 On March 8, 2017, at approximately 10:50 A.M., I met NOLT in Santa Rosa at the CAL
26 FIRE LNU Headquarters to review physical evidence. We examined the conductor
27 associated with private pole 1. All sections of conductor had heat and fire damage
28 consistent with an external source such as a burning pole. This was evident by the
29 observation of damage to the underside of the conductor jacket and tape. Also, there
30 was no indication of arcing found on any of the conductor associated with private pole 1.
31

1 Following the review of the private electrical system, NOLT looked at the fuse
2 assemblies collected from PG&E. The fuses found in PG&E pole 2 (pole 773) were 25
3 Amp fuses. We examined the fuse assemblies from PG&E poles 1 and 3 and observed
4 no obvious signs of damage. During the review, NOLT was unable to open and identify
5 the fuse type in PG&E poles 1 and 3.

6
7 After NOLT finished his examination, I left Santa Rosa and drove to Anamet, INC in
8 Hayward, CA, where I met with Testing Manager M. Dilip BHANDARKAR and James
9 BELLINO. I transferred custody of the evidence items I determined to have tested
10 (evidence items E-1, E-2, E-5, E-25 and E-32) to BELLINO at 4:10 P.M (see attachment
11 F).

12
13 PG&E has provided numerous data files to ZIMMERMAKER, who transferred then to
14 me. Any data not referenced in this report has been retained on a storage device kept
15 in the evidence locker in LNU.

16
17 On June 27, 2018, at approximately 9:00 A.M. I met with NOLT and BERTOLINO at
18 PG&E Technology Center at 3400 Crow Canyon Road San Ramon, CA. BERTOLINO
19 brought Smart Meters from 1200, 1110, and 1177 Bennett Lane (evidence items E-20,
20 E-21, and E-22). At approximately 11:00 A.M. Smart Meter Data was extracted by Itron,
21 Inc technicians. The raw data was handed over to CAL FIRE on a thumb drive and
22 collected as evidence. The Evidence items were returned to BERTOLINO, who
23 transported them back to the LNU Evidence locker at 2210, West College Avenue,
24 Santa Rosa, CA (see attachment F).

25
26 On September 17, 2018, I was contacted by Regina Bagdasarian (BAGDASARIAN), a
27 Lawyer with the FRANTZ LAW GROUP. BAGDASARIAN informed me their
28 investigator, Michael Schulz, had compiled some definitive information on the origin of
29 the Tubbs Fire that he wanted to share it with me. I contacted BALDWIN who informed
30 me BERTOLINO would pick up the information from SCHULZ in Santa Rosa later in the
31 month (see attachment J, FRANTZ).



1
2 On September 19, 2018, I received a draft report authored by BELLINO, on the
3 metallurgical evaluation of the five samples exposed to the fire at 1128 Bennett Lane.
4 The samples submitted for analysis included evidence items E-1, E-2, E-5, E-25, and E-
5 32. In summary, the report reached the following conclusion: (see attachment P):
6

7 "No evidence that the system was energized at the time conductors were severed was
8 observed in the samples submitted. If the conductors were charged when they were
9 severed and fell to the ground, the physical evidence of that condition, namely electric
10 arcing, was destroyed by extensive fire exposure and melting."
11

12 On September 24, 2018, I spoke with Fire Investigator Mike COLE, who told me he was
13 an investigator for insurance companies. He had obtained cell phone video footage
14 from an unknown witness. COLE told me the video had been analyzed and it was
15 determined the fire had originated from the top of the hill near the ZINC house on the
16 1128 Bennett Lane property. I requested a copy of the video.
17

18 On September 28, 2018, BERTOLINO received a thumb drive containing a Power Point
19 presentation identified by BAGDASARIAN, named "Tubbs Fire, Investigative Update,
20 September 27, 2018" (see attachment J, FRANTZ). BERTOLINO mailed me the thumb
21 drive with the presentation. In summary, the material provided suggests the Tubbs Fire
22 originated on the hillside along Bennett Lane, on the 1128 Bennett Lane property, in the
23 vicinity of the satellite dish or PG&E conductor running parallel to Bennett Lane. Upon
24 review, CAL FIRE Investigators determined this area was not within the GOA, utilizing
25 macro indicators observed at the scene.
26

27 On October 12, 2018 I was emailed a copy of video footage from COLE which was put
28 onto a thumb drive and stored as evidence. In the email, COLE explained the
29 dashboard time in the vehicle is 9:58 P.M., but the record time was 9:45 P.M., as
30 determined by the metadata (not provided). COLE claims the video was recorded along
31 Hwy 128 just north of Tubbs Lane (see attachment J, COLE).

1
2
3 On November 15, 2018, I received a copy of a letter to CAL FIRE counsel Bruce
4 CRANE from PG&E Counsel Elizabeth COLLIER (see attachment R). In summary, the
5 letter clarifies Fuse 773 (PG&E pole 2) operated on October 8, 2017 at 9:20 PM, de-
6 energizing residences downstream, including 1128, 1200, and 1177 Bennett Lane.

7
8 On December 11, 2018, I received a final report authored by BELLINO on the
9 metallurgical evaluation of the five samples exposed to the fire at 1128 Bennett Lane.
10 The samples submitted for analysis included evidence items E-1, E-2, E-5, E-25, and E-
11 32. In summary, the report reached the following conclusion: (see attachment P):

12
13 "No evidence that the system was energized at the time conductors were severed was
14 observed in the samples submitted. If the conductors were charged when they were
15 severed and fell to the ground, the physical evidence of that condition, namely electric
16 arcing, was destroyed by extensive fire exposure and melting."

17
18 On December 26, 2018, I received a final report from NOLT on his observations on the
19 ignition source of the Tubbs Fire. In his Abstract, NOLT writes; "The source of ignition
20 for the wild land fire in the subject area was electrically undetermined because of the
21 severe damage to the electrical equip in and around 1128 Bennett Ln. Further, while
22 PG&E automatic equipment (smart meters, SCADA, reclosers, etc.) responded to and
23 documented some of the fire progression events, the combination of physical evidence,
24 data, witness statements, videos, etc. do not confirm that PG&E equipment was the
25 source of ignition". NOLT further discusses that if an electrical fault within the wiring at
26 1128 Bennett Lane was responsible for the 2-25A fuses blowing on pole 773 (PG&E
27 pole 2), then the 2-3A fuses on PG&E pole 3 would have also been blown and they
28 were not. NOLT also states; "It is therefore more likely the 2-25A fuses blowing is the
29 result of some other source of load increase like; occupant demand, occupant fire
30 suppression, or some other undetermined phenomenon".

Under point 5 of his report, NOLT discusses the lack of physical evidence near the residence, normally used to evaluate, was not present because it was all consumed by fire. He goes on further to stating; "Any subsequent fire induced melting of a conductor can destroy the fine melt details of an arced conductor. This fire induced conductor melting destroys the evidence of any possible arcing ignition". No such evidence was found by NOLT.

Opinions and Conclusion:

Based on my training, education and experience, investigation team input, witness statements, expert evaluations, and evidence collected, I have formed opinions on the origin and cause of the Tubbs Fire.

A PG&E service drop, privately owned conductor and equipment, and several aluminum conductor fragments were recovered. Fire pattern indicators showed fire spread towards the structure, indicating an ignition in the light fuels between the structure and PG&E pole 3. However, there is no evidence showing the conductors were "charged" when they were severed and fell to the ground, as described by BELLINO. The condition of the conductors suggests they were suspended while exposed to sustained heat and flames from heavy fuels such as burning vegetation or a structure. This is further corroborated by the light flashy fuels present where the conductors came to rest, which would not provide the sustained heat and flame needed to damage the conductor, further suggesting the fire damage occurred while suspended.

The fire pattern indicators observed in the light ground fuels immediately east of the structure are likely a secondary ignition from the already burning, "uncharged" PG&E service drop and private conductor after they fell to the ground. The aluminum conductor fragments are likely a result of the conductor fracturing from heat.

PG&E hardware was collected as evidence from PG&E pole 3 and was found to be undamaged and in good repair. Fuses collected from PG&E pole 3 were rated 3-AMP, LE80 (Rev. 7/2011)

1 found in good condition, and showed no evidence of operating. If an event would have
2 occurred, such as a tree or limb falling on PG&E equipment between PG&E pole 3 and
3 the roof top weather head, causing damage, this in theory would result in the 3-AMP
4 fuses on the PG&E transformer operating, protecting the PG&E equipment between the
5 weather head and Bennett Lane. The fact that the PG&E 3-AMP fuses did not operate
6 in addition to the metallurgist finding no evidence of conductivity on these conductors at
7 the time of their break, provides no evidence supporting the PG&E conductor and/or
8 equipment between PG&E pole 3 and the weather head as causes of the fire.
9 Therefore, it is unlikely PG&E equipment is responsible for causing the Tubbs Fire.

10
11 Fuse 773 is located on Bennett Lane, just east of the 1128 Bennett Lane driveway.
12 This fuse was reported as operating (opening the circuit) at approximately 9:20 P.M., on
13 October 8, 2017. The fire was initially reported at approximately 9:41 P.M. The PG&E
14 pole 3 contains 3-AMP fuses with the objective of protecting the main PG&E distribution
15 lines from an event at the 1128 Bennett Lane residence. In theory, if an event
16 happened at the 1128 Bennett Lane residence between PG&E pole 3 and the
17 residence, the 3-AMP fuses would operate and not the 25 AMP fuses at Fuse 773. The
18 fact that Fuse 773 operated, but the 3-AMP fuses did not, provides further evidence an
19 event causing damage and a fault did not occur between PG&E pole 3 and the 1128
20 Bennett Lane residence while there was electricity at the 1128 Bennett Lane Property
21 (prior to 9:20 P.M.). However, these facts stated in this paragraph do not eliminate a
22 structure fire or a fault on the private conductor line at 1128 Bennett Lane from
23 occurring prior to 9:20 P.M. This is due to the fact if an event occurred on the private
24 conductor line and/or privately owned electrical equipment at the 1128 Bennett Lane
25 residence, this in theory would result in the electrical circuit breakers at the residence
26 operating, shutting off power to the electrical meter and disconnecting the circuit to the
27 PG&E service drop. This in theory would not result in the PG&E pole 3, 3-AMP fuses
28 operating, and would keep them in the position they were found when collected as
29 evidence. In summary, these facts stated above disprove the theory of the PG&E
30 conductor and equipment between PG&E pole 3 and the 1128 Bennett Lane residence
31 as a cause of the fire. However, these facts stated above still leave the possibility of a

1 fire cause by the structure and/or private conductor lines at the 1128 Bennett Lane
2 property.

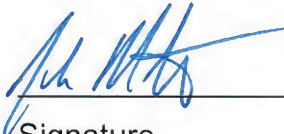
3
4 At the 1128 Bennett Lane residence, after the service drop, electrical power was
5 redistributed to the residence, associated structures, and water pump and well via
6 privately owned conductor and equipment. According to ANDREWS, caretaker of the
7 property, there was no gas service in the residence and power was on the day of the
8 fire. Private pole 3, which was located immediately adjacent to the residence was the
9 primary distribution pole for private conductor extending northwest towards the pool
10 area and southeast towards the water pump station. Private pole 3 was identified to be
11 replaced in the near future by ANDREWS, because of its weakened condition. It was
12 completely consumed by fire, with the exception of a small piece observed next to the
13 pole's burned out hole. The privately owned electrical hardware was destroyed during
14 the fire and no evidence of an electrical event was observed.

15
16 However, the existence of private pole 3 on the north side of the residence provides
17 some theory of explanation for the lack of evidence of an electrical event found on the
18 private conductor. Due to the light ground fuels to the north of private pole 3, it is my
19 opinion as a fire investigator, if the pole fell to the north into this vegetation, we would
20 have found the pole more in-tact, due to low fire intensity. If the pole fell to the south,
21 this would pull the private conductor on top of the structure, which burned upwards of
22 1981 degrees Fahrenheit, based on the presence of melted copper found within the
23 structure. This theory of the private conductor evidence being consumed by the
24 structure fire provides an explanation as to why no evidence of the private conductor
25 being energized at the time of the fire was found by the metallurgist. The electrical
26 meter and circuit breakers associated with the structure were also destroyed by the fire.
27 If these items were preserved, it would further clarify the cause of the fire. Gathered
28 data, evidence, fire indicators, and witness statements established within this
29 investigation, provide no evidence to disprove the structure itself or the private
30 conductor line at 1128 Bennett Lane as a cause of the fire. If an event occurred, such
31 as a tree, limb, or pole falling, causing trauma to the privately-owned conductor,

evidence of such an event was not observed.

In summary, after a thorough, systematic investigation, taking into account witness statements, expert opinion, physical evidence, collected data, and fire indicators, the origin of the Tubbs Fire is the primary residential structure and immediate area surrounding the structure at 1128 Bennett Lane. During my investigation, I eliminated all other causes for the Tubbs Fire, with the exception of an electrical caused fire originating from an unknown event affecting privately owned conductor or equipment.

*I reserve the right to amend or augment my opinion if new information is provided to, or discovered by me at a later date.

 1-20-19
Signature Date

John MARTINEZ, #2987

Battalion Chief

CAL FIRE San Mateo-Santa Cruz Unit

10 - ATTACHMENTS:

- A. Weather conditions discussion prepared by CAL FIRE North Ops predictive services
- B. FC-34 Interagency Report of Incident and Dispatch Action
- C. Tubbs Damage Inspection Report (report appendix A provided on disk).

D. Photographs

- 1. MARTINEZ
- 2. LOHSE
- 3. ROATH
- 4. BERGLAND
- 5. STEIS
- 6. MARTIN
- 7. MONROE/STEWART
- 8. RICH
- 9. HOSKINS
- 10. ANDERSON
- 11. MILLER
- 12. WITNESS/LOHSE
- 13. COMPARISON
- 14. JACKSON

E. Incident sketches and diagrams**F. Evidence log/Chain of custody****G. CAL FIRE LE 71, Supplemental Reports**

- 1. FRITS
- 2. MARTINEZ
- 3. LOHSE
- 4. BERGLAND
- 5. ROATH

- 6. FRANKLIN
- 7. BERTOLINO
- H. CAL FIRE LE 78, Witness Statements
- I. HOSKINS report – Calistoga Police Department
- J. Additional shared information
 - 1. MILLER
 - 2. FRANTZ
 - 3. OKELLY
 - 4. COLE
- K. LE-100 inspection report for 1128 Bennett Lane
- L. LIDAR mapping exhibit
- M. Forester II MARTIN supplemental report
- N. Peer Review – MONROE and STEWART
- O. SOA Grid Search
- P. Metallurgist Report
- Q. Electrical Engineer Report.
- R. PG&E Correspondence

